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**SAC INTELLIGENCE  
QUARTERLY  
PROJECT WARRIOR STUDY**

**THE MISSILES  
IN CUBA, 1962:  
THE ROLE OF  
SAC INTELLIGENCE (U)**

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PREPARED BY:  
CAPT SANDERS A. LAUBENTHAL  
544th STRATEGIC INTELLIGENCE WING  
MAY 1984

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SAC INTELLIGENCE QUARTERLY

PROJECT WARRIOR STUDY

THE MISSILES IN CUBA, 1962:  
THE ROLE OF SAC INTELLIGENCE (U)

Captain Sanders A. Laubenthal

544th Strategic Intelligence Wing

Strategic Air Command

Offutt Air Force Base, Nebraska

May 1984

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FOREWORD

(U) Project Warrior means many things to many people. To Captain Sandy Laubenthal this Air Force-wide program meant an opportunity to write a story of intelligence work never before told. This study is her initiative, her work and her words. It is a remarkable story - truly crediting the outstanding work of SAC Intelligence officers, NCOs, and airmen stationed at Offutt some twenty years ago. It is certainly time that a story of this magnitude be told. It is also time to better understand and recognize the international significance of the 544th RTG during the Cuban Missile Crisis. Fortunately for all of us, Project Warrior provides the perfect framework for this splendid effort by Captain Laubenthal. We are in her debt.

*William L. Doyle, Jr.*  
WILLIAM L. DOYLE, JR.  
Major General, USAF  
DCS/Intelligence  
Offutt AFB, NE  
June 1984

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PREFACE

(U) In one of my earlier assignments in the Air Force, I was Deputy Chief, Office of History, Thirteenth Air Force, working with the legendary Thirteenth Air Force Historian, Dr. W. T. T. ("Chips") Ward. I discovered that I liked historical analysis, dealing not only with recent events but with reconstruction of the relatively distant past. Later, as a faculty member at the Air Force Institute of Technology, I also served as the Institute historian. Then, believing that it might be even more interesting to do all-source intelligence analysis, I cross-trained into the Intelligence career field and very quickly became editor of the SAC Intelligence Quarterly.

(U) Not long after my arrival at the 544th Strategic Intelligence Wing, one day in BB-18 one of the imagery interpreters said to me, "The missiles in Cuba were found by an airman in the 544th, here in this vault."

(U) This statement surprised and intrigued me. I didn't really believe it, but I was curious enough to go to the SAC Office of History and look at a monograph on the Cuban missile crisis which a SAC historian had written in 1963. I found no recognizable trace of the story I had wondered about. Still curious, I looked at the 544th's own microfilmed history for October 1962. It certainly gave an impression of intense activity, but again it told me nothing recognizable about the oral tradition.

(U) Nevertheless there was plenty of evidence that something of significance had been going on at the 544th at that time. The 544th had won an Air Force Outstanding Unit Award for the period 1 September - 30 November 1962, a time during which the wing had been extraordinarily busy. The citation credited the 544th with "providing technical intelligence support to all levels of the United States Air Force and other Government Agencies" and stated, "The support rendered was of great benefit to the Nation and is a standing tribute to sound management, an exceptionally high level of proficiency, devotion to duty, and an inherent desire to promote the prestige and integrity of National Defense." Whatever had happened, it was important.

(U) Having some experience in finding lost stories, I decided to look for this one and write it as an article for the SAC Intelligence Quarterly. A good deal had been published about the intelligence aspects of the Cuban missile crisis; and by comparing that with the material in the archives, I hoped to be able to reconstruct the story of the role of SAC Intelligence.

(U) This proved to be a tantalizing task. Over several months I pieced together, from open sources and some classified articles, a fair picture of what had happened at the national level. The SAC archives contained a collection of special Cuban missile crisis histories prepared by various SAC units, including the

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4080th Strategic Wing and the 55th Strategic Reconnaissance Wing; from these I recovered the story of SAC intelligence collection. But the rest of the intelligence story proved extremely elusive, in spite of fascinating hints that I found here and there.

(U) One of these was a memorandum I found in the wing historian's files. Colonel Mayo H. Neilsen, who had been the wing commander during the mid-1970s, had wanted to know what role the 544th had played during the crisis. Someone had put together, apparently from corporate memory, three paragraphs which mentioned U-2s, Lt Gen Eugene F. Tighe, Jr., and a briefing which he apparently gave. It was vague and rather confusingly stated, but I was able to glean a little more information for the article.

(U) General Tighe has retired from his position as Director of the Defense Intelligence Agency (DIA), but I had learned that he was still a DIA consultant. I was concerned, at that point, because I had no DIA sources for the DIA part of the story. With the assistance of the DIA representative to SAC, I had been talking to the DIA historian about this problem, and we sent a preliminary version of the article to DIA for whatever light they could shed. I hoped very much that General Tighe, as a person who knew something about the story, would look at it.

(U) When the article came back, it was covered with penciled notes from General Tighe, including one piece of information which surprised me very much. His comments created enough interest in the wing and in SAC Intelligence to make it possible for me to do what I wanted to do next: talk both with General Tighe and with retired Lt Gen Robert N. Smith, who had been SAC's Director of Intelligence at the time of the crisis. Later I also talked with retired Maj Gen James C. Enney and retired Col Norman E. Shaw, who had both been in SAC Intelligence at the time.

(U) Things had begun to fall into place as soon as I saw General Tighe's notes. The interviews resolved most of my remaining questions and made it possible for me to finish this study (it had grown beyond the size of an article). If more information becomes available, it may be possible to refine some of the details; but I think the basic outlines of the story will remain the same.

*Sanders A. Laubenthal*

SANDERS A. LAUBENTHAL, Capt, USAF  
Chief, Research Management

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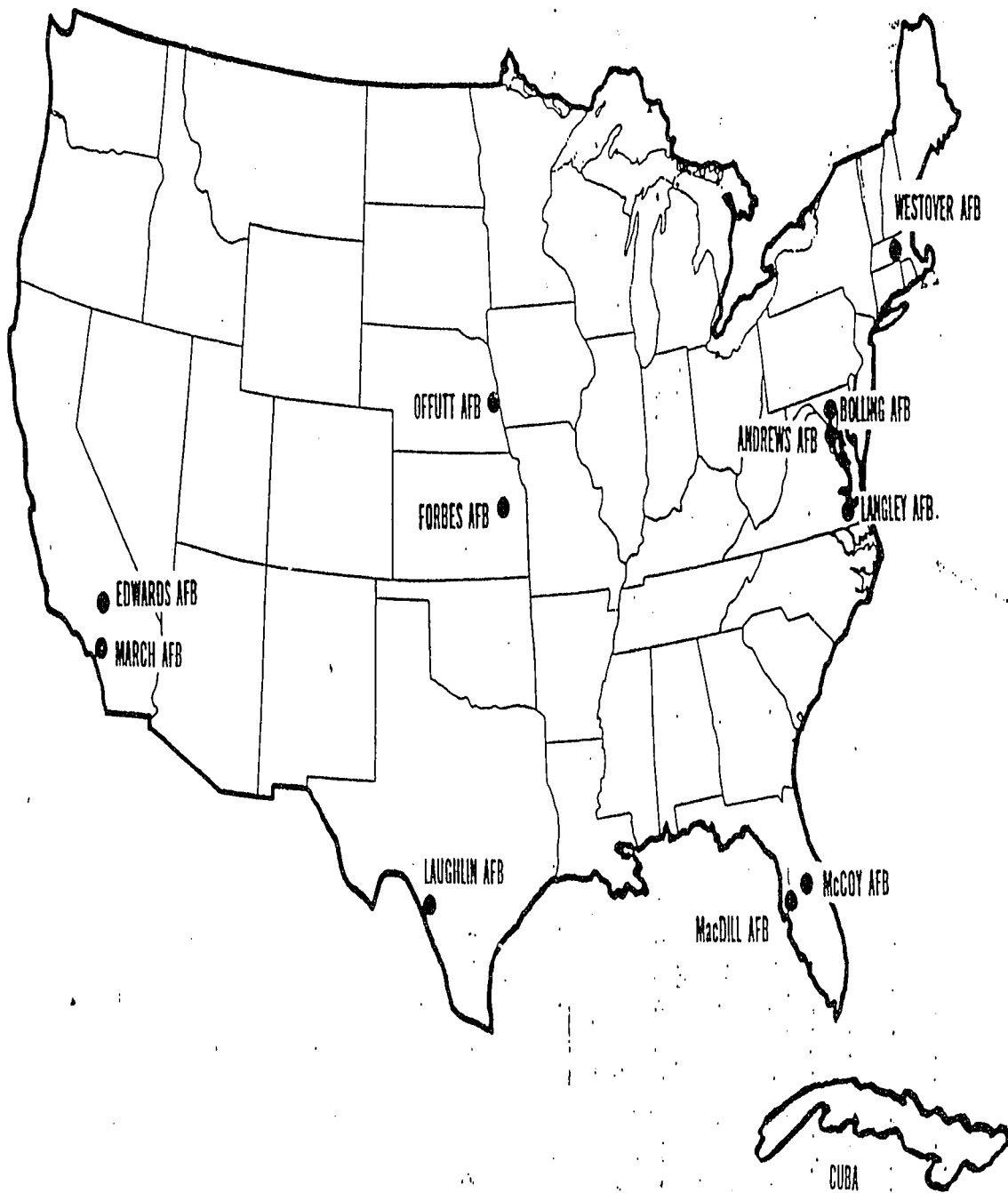
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(U) LOCATION OF BASES MENTIONED IN NARRATIVE

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Capt Sanders A. Laubenthal, 544 SIW

The Cuban missile crisis was a watershed event to which history offers no parallel. At the time, the United States had overwhelming strategic superiority in intercontinental ballistic missiles (ICBMs): over 200, while the Soviets had an estimated 10 and perhaps as few as two. By moving medium-range and intermediate range ballistic missiles into Cuba, the Soviets could hope to achieve their first genuine first-strike capability against the United States. An attack from Cuba could outflank the US Ballistic Missile Early Warning System (BMEWS) and strike SAC bomber bases and American missiles with minimal warning. The US discovered this deployment before the missiles were operational. For 13 days in October 1962 the United States and the Soviet Union stood locked in mutual confrontation; then the Soviets backed off, and the world drew back from the brink of nuclear war.<sup>1</sup>

(U/FOUO) An event of such enormous significance has naturally continued to hold the interest of researchers and chroniclers of many kinds. Several excellent books--including Graham Allison's The Essence of Decision: Explaining the Cuban Missile Crisis, Elie Abel's The Missile Crisis, Robert F. Kennedy's Thirteen Days, and Hugh Thomas's Cuba: The Pursuit of Freedom--have documented the more public aspects of the crisis in considerable detail. Several articles in Studies in Intelligence--notably "The Cuban Missile Crisis--Phase One" (Fall 1972)--have described several aspects of the intelligence participation. Over 21 years, much of the historical evidence has disappeared; and even today, some still has not been released at the SECRET level. But by examining the published sources and comparing them with the archives of SAC and the recollections of some of the major participants, it is possible to reconstruct a fairly clear picture of the role of SAC intelligence in the Cuban missile crisis and how it fit into the community-wide effort and contributed to the making of decisions at the national level.<sup>2</sup>

#### The Watch on Cuba (U)

(S/NOFORN) The chain of events that finally precipitated the crisis is usually traced back to the visit of Soviet First Deputy Premier Anastas Mikoyan to Cuba in February 1960, little more than a year after Fidel Castro came to power. The visit resulted in the first Cuban-Soviet economic arrangements, and Castro may have raised the question of arms as well. But even earlier, before any Soviet arms were shipped to Cuba, distorted refugee reports of Soviet missiles, Chinese soldiers, and much else had begun to gather in the files of the Central Intelligence Agency (CIA)--five inches worth of reports on missiles in Cuba in 1959 alone. The low reliability of these reports made them of marginal value, but a staff of CIA professionals continued to collect, collate, and compare them.<sup>3</sup>

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(S/NOFORN) Soviet shipments of arms to Cuba did begin in the summer of 1960, and in October 1960--partly because of the continuing refugee reports--the CIA began aerial surveillance of the island with its own U-2s. The National Photographic Interpretation Center (NPIC) checked every report that could be checked against the U-2 photography.<sup>4</sup>

(S/NOFORN) The U-2 film was customarily made up in multiple copies and sent out to various intelligence organizations and military commands, including SAC. The primary orientation of SAC Intelligence was toward the Single Integrated Operational Plan (SIOP), and at first Cuba was essentially a side issue since it was not a strategic target. Nevertheless, the Cuban situation was monitored, like anything else that might eventually become a serious problem.<sup>5</sup>

(S) SAC's Commander in Chief at that time, Gen Thomas S. Power, was keenly interested in intelligence; it was not unusual for him to pore over photo mosaics of the Soviet Union, looking for missile sites with a magnifying glass. His Director of Intelligence,\* Brig Gen Robert N. Smith, had held that position since 1955 and had laid some of the groundwork for the establishment of the Joint Strategic Target Planning Staff (JSTPS), which had been activated at Offutt AFB in 1960.<sup>6</sup>

(U/FOUO) The Directorate of Intelligence in 1962 had four divisions: an Air Estimates Division, a Targets Division, a Target Materials Division, and a Collection Division. Some of the people in these divisions were "dual-hatters" who also held positions on the JSTPS.<sup>7</sup>

(U) Since the Chief of the Air Estimates Division, Col George J. Keegan, Jr.,\*\* did not yet consider Cuba a strategic problem, most of the work on Cuba was done by the 544th Reconnaissance Technical Group (RTG), also located in the SAC headquarters building and commanded by Col Thomas S. Osborne. The 544th, a rapidly growing organization which was about to become an Aerospace Reconnaissance Technical Wing,\*\*\* had several operational centers: a Research Center, a Defense Analysis Center, a Trajectory Center, a Target Materials Center, and a Data Systems Center.<sup>8</sup>

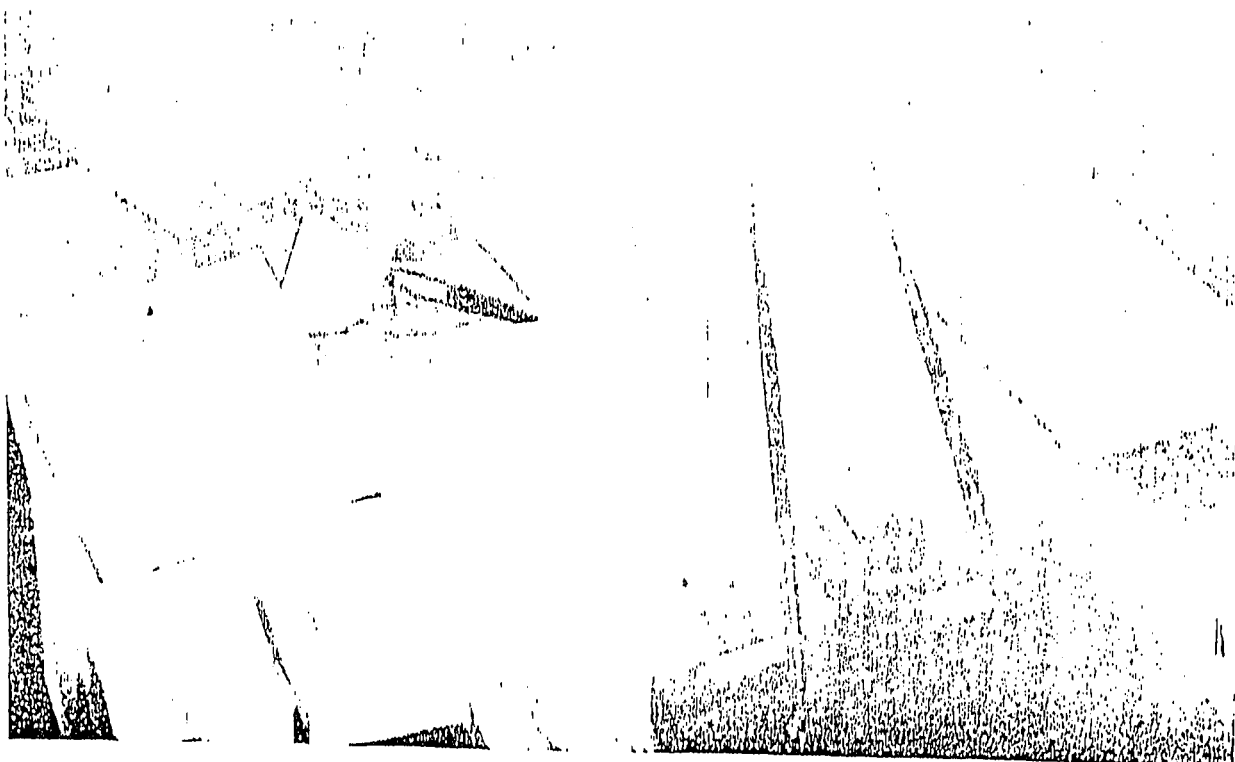
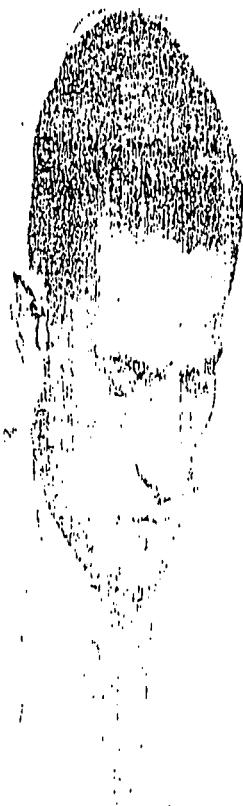
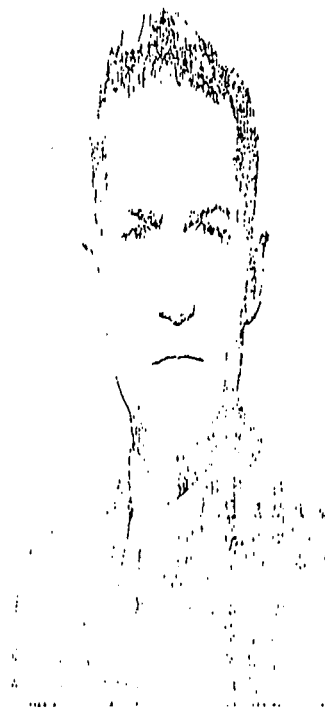
\* (U) The title "Deputy Chief of Staff, Intelligence" was not used until 1966.

\*\* (U) He retired as a major general after serving as Assistant Chief of Staff, Intelligence, Headquarters USAF.

\*\*\* (U) It became a wing on 1 January 1963. On 15 October 1979 it became the 544th Strategic Intelligence Wing.

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(S/NOFORN) Surveillance of Soviet ships going to Cuba began when ships moving through the Bosphorus were photographed by the Navy, CIA, and Turkish elements; those which transited the straits at night were photographed later in the Mediterranean. Once ships passed Gibraltar or left the Baltic, US naval reconnaissance aircraft took over. Finally, as the ships approached Cuba, they were photographed again by a Marine photo squadron at Guantanamo and by Coast Guard planes. In Cuba the aircraft were usually uncrated and assembled in open areas, where aerial photography could confirm their identify.<sup>13</sup>

#### The Watch Intensifies (U)

(U) It has never become wholly clear whose idea it was to install offensive weapons in Cuba. Castro described it on various occasions as a Soviet idea, a Cuban idea, and a "simultaneous action on the part of both governments." Khrushchev claimed that the weapons had been installed at the request of the Cuban government. But it seems most probable that the Soviets had been considering for a long time the possibility of placing offensive missiles in Cuba--perhaps as long as they had been supporting Castro.<sup>14</sup>

(U) In early 1962 there was a lull in the arms shipments, perhaps while this possibility was being evaluated. The decision may have been made as early as April, perhaps at a meeting of the Soviet Party Presidium between 22 and 25 April. There may have been some preliminary discussion with high-ranking Cuban officials, such as the Cuban Minister of Public Works and Cuba's ambassador to Moscow; but at this early stage of decision-making, in April or May, the Soviets probably kept their ideas on very close hold. Tensions in the Cuban-Soviet relationship during the spring of 1962 suggest that the Soviets may have let Castro glimpse the possibility of offensive missiles--which would superficially free Cuba from the threat of invasion--and then held back when he pressed for a commitment. The decision had probably been made before Khrushchev, in earliest June, promised a group of returning Cuban trainees that he would send "arms and other things" to Cuba.<sup>15</sup>

(U) The immediate pretext was supplied by a series of demonstrations in Cuba, fueled by discontent over a slackening economy. Combined with the economic dislocation itself, they allowed Castro to express grave concern over the effects of a possible invasion by the US. On 1 July Raul Castro set out for Moscow to obtain a promise of more protection for Cuba. As a result of his discussions with Khrushchev and others, the Soviets agreed to send an increased military force and modern equipment to Cuba.<sup>16</sup>

(U/FOUO) Meanwhile, neither the lull in shipments nor the continuing flow of human source reports had gone wholly unnoticed in the US intelligence community. At that time a lively competitiveness existed among the various intelligence organizations, including CIA, the recently established Defense

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Intelligence Agency (DIA), SAC Intelligence, and others; everyone wanted to be first to find out what was going on, about anything, including Cuba. It was rather a contest. General Power liked to be able to pick up a "hot line" and tell Gen Curtis E. LeMay, who was then Chief of Staff of the Air Force, that his photo interpreters (PIs) or all-source analysts had found something new. General LeMay would then pass the word to Secretary of Defense Robert S. McNamara, who had a contest going with Dean Rusk, the Secretary of State. It was something of a coup to make the other person wonder, "Now, how did he know that?"<sup>17</sup>

(U/FOUO) On a more serious level, General Smith was becoming more concerned about Cuba. He felt that it was genuinely possible that Cuba, because of its location, could become a "spoiler" in terms of the whole strategic situation, because with only minimal warning the command and control system and SAC bases would be at risk. By the early summer of 1962, the PIs and all-source analysts, as well as the ELINT specialists in the Defense Analysis Center, had increased their efforts to find out what was going on in Cuba.<sup>18</sup>

(C) In May 1962 the 55th Strategic Reconnaissance Wing (SRW), located at Forbes AFB, Kansas, had flown two higher headquarters-directed ELINT missions in the Caribbean area. The ELINT data was, as always, forwarded to Offutt, where it was processed by the 544th. The intelligence gained from these missions may have contributed to General Smith's increased concern.<sup>19</sup>

(S) It was perhaps also at this time that the PIs of the Research Center began to study the tracker film from the U-2 missions. The U-2 actually carried two cameras: the main camera, which was the primary imagery collection system, and the tracker camera, which was normally used only to track the path of the aircraft over the terrain. The tracker film was processed first and then correlated with the main camera film, to determine the location of whatever had been imaged by the main camera. The quality of the tracker film was variable; but when the resolution was exceptionally good, it was sometimes possible to identify objects along the route which had not been imaged by the main camera. Also, the Research Center could get the tracker film sooner than it could get main camera film, which might arrive weeks after the mission.<sup>20</sup>

(S) All-source intelligence--refugee and agent reports, communications intelligence, and the like--had begun to highlight certain areas as centers of unusual activity. The PIs looked closely at these areas on the tracker film and had enlargements made of areas they were interested in. It was thus that, perhaps in late June 1962, they saw the first positive evidence that the human reports of "rockets"--in the sense of surface-to-air missiles (SAMs)--were apparently true, or about to be.<sup>21</sup>

(S) The SAMs were not there yet. What the PIs saw were ground scars in a certain configuration associated with SA-2 sites in the Soviet Union.<sup>22</sup>

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(S) The PIs had no doubt at all about what they were seeing: SA-2s were going to be installed in Cuba. It would be about a month between the time the ground scars first appeared and the actual installation of equipment; revetments had to be made, earth stabilized, and the like. But Colonel Tighe, General Smith, and General Power all concurred with the estimate that SAMs were going to be installed in Cuba--and that this had significant implications.<sup>23</sup>

(U/FOUO) A briefing on the SAM discovery was prepared for presentation in Washington. General Power, who was intensely interested in photo interpretation, was a sponsor of the briefing; he took General Smith and Colonel Tighe to the capital and introduced them to the audiences who were being briefed. Colonel Tighe, who was the "outside briefer" for SAC Intelligence, made the presentation. But no one--not CIA, not NPIC, not even the Air Staff--was willing to give credence at this early stage. Those organizations had not done the intensive background study on the human source reporting which had led the Research Center to its conclusions, and they did not regard the ground scars as sufficient evidence that SAMs were to be brought in.<sup>24</sup>

(S/NOFORN) Meanwhile, in July, Soviet shipments of arms resumed at a considerably increased pace. The first shipments were detected as they left the Black Sea in mid-month, and the US effort to photograph all ships carrying military cargoes was intensified. But many of the ships now transited the straits by night or in bad weather; others left from Baltic ports, where US capabilities were rather limited. The network for ship photography in the Atlantic was not yet adequate. So some ships escaped being photographed, and the cratologists' results on those that were, were seldom disseminated in time to be useful.<sup>25</sup>

(S) Reports from refugees and clandestine agents within Cuba made it abundantly clear by mid-August that something extraordinary was going on. Agents reported the evacuation of Cubans from the port of Mariel and the secrecy that surrounded the unloading and transport of equipment. Sources told of trucks lowered into holds for loading and hoisted out covered with tarpaulins; of technicians who arrived in slacks and sport shirts at Cuban docks, then formed into ranks of fours and moved out in truck convoys; of Soviet ships at Mariel unloading a large quantity of prefabricated concrete forms whose size and shape suggested possible association with missiles; and much more. Reports of "rockets" were numerous; taken together with the reports of construction activity and equipment observed during the spring of 1962 and new observations of suspicious-looking crates, they were beginning to make the intelligence community think further about the introduction of SAMs into Cuba.<sup>26</sup>

(U/FOUO) At the Research Center, the study of the tracker film contributed its evidence to the end of debate about the SAMs. The PIs had found what looked much more like an SA-2 site, one

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with the first of revetments could be distinguished, and very soon after, a second site. Roads, faint but suggesting the characteristic "star of David" pattern associated with the SA-2, were also distinguishable. By late August the assessment was becoming more solid within the intelligence community at all levels, to the point where the State Department was almost ready to mention SAMs in a background briefing to the press.<sup>27</sup>

(S) At SAC, the discussion now focused on the significance of the SAMs. To Colonel Tighe the major question had become, "Why are the Soviets ringing Cuba with SA-2 sites?"--a phenomenon which spoke of a determination to keep out reconnaissance. He had been operations officer of the 497th when the first photos were taken of the first SA-2 site at Glau in East Germany in 1958--a historic deployment--that had also apparently been intended to deter reconnaissance. What did the Soviets intend to conceal in Cuba? He discussed the issue frequently with the State Department advisor to SAC, Mr. Edward L. Freers,\* who could carry SAC's views to Washington.<sup>28</sup>

(U) Those views were similar to others being expressed, at about the same time, at the highest levels. On 22 August CIA director John A. McCone told President Kennedy that there was only one interpretation he could put on the material going into Cuba: the Russians were preparing to introduce offensive missiles.<sup>29</sup>

(U) McCone admittedly was speculating; long before the build-up began, he had suspected on purely strategic grounds that the Soviets might install offensive missiles in Cuba. For the first time, they had access to an area within easy range of the US--and missiles of medium or intermediate range could not reach the Soviet Union if they should ever be turned against the original owners. But there was no hard evidence, and without it McCone's suspicions seemed incredible even to many others in the intelligence community.<sup>30</sup>

(U) By now the attention of the public as well as the intelligence community was focusing on the military build-up in Cuba. On 24 August the State Department invited reporters to a background briefing by Roger Hilsman, director of the department's Office of Intelligence and Research. Hilsman told the reporters that some 20 Soviet-bloc ships had arrived in Cuba since 26 July, carrying large quantities of transportation, electronic, and construction equipment, much of which seemed to be intended for the improvement of coastal and air defenses. He pointed out that the material might include surface-to-air missiles (SAMs) such as the Soviets had already supplied to Iraq and Indonesia.<sup>31</sup>

(U) The presence of SAMs would give strength to the hypothesis that offensive missiles were going into Cuba--because, as McCone contended, the Soviets could scarcely believe that SAMs alone

\* (U) His formal title was Political Advisor to the Commander-in-Chief.

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would guarantee Cuba against a serious invasion attempt from the US. If SAMs were present, they were being installed to protect something else--possibly offensive missiles. Kennedy was concerned enough to order special daily intelligence reports, which began on 27 August.<sup>32</sup>

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(S/NOFORN) Then, on 29 August, a U-2 mission came back with photos that brought the intelligence community to a fast boil. Most of the eastern part of Cuba was cloud-covered; but westward, in the areas that were clear, photo interpreters at NPIC could for the first time see SAM sites on the main camera film. Before the day was over, eight SA-2 sites in various stages of construction were identified along the northern coast of Cuba. One at least was occupied, with equipment including launchers, transporters, and FRUIT SET (later known as FAN SONG) guidance radar. But their placement strongly suggested an area defense of the island, rather than maximum protection of key military targets.<sup>33</sup>

(S/NOFORN) Analysis of the mission of 29 August continued; with a ninth SAM site discovered the following day. Besides the SA-2 sites, the PIs at NPIC also found a short-range guided missile site at Banes, on the coast, evidently intended for coastal defense against an amphibious landing.<sup>34</sup>

(S/NOFORN) The site at Banes caused President Kennedy much concern when it was briefed to him on 7 September. "How sure are you that this is not an offensive weapon?" he wanted to know. Just days before, on 4 September, he had issued a strongly-worded statement on Cuba, assuring the American people that there was no evidence of the presence of offensive capability in Cuba: "Were it to be otherwise, the gravest issues would arise." The briefer told him the site was in the eastern area of Cuba, with the launchers oriented away from the United States; but he had to admit that not everything was known about its capabilities.<sup>35</sup>

(S/NOFORN) The President spoke to General Marshall L. Carter, the CIA Deputy Director, who was standing in for McCone. "We have to be very careful about any evidence of offensive weapons in Cuba. If such evidence should be found, it must be kept very restricted, and I want to be one of the first to know about it."<sup>36</sup>

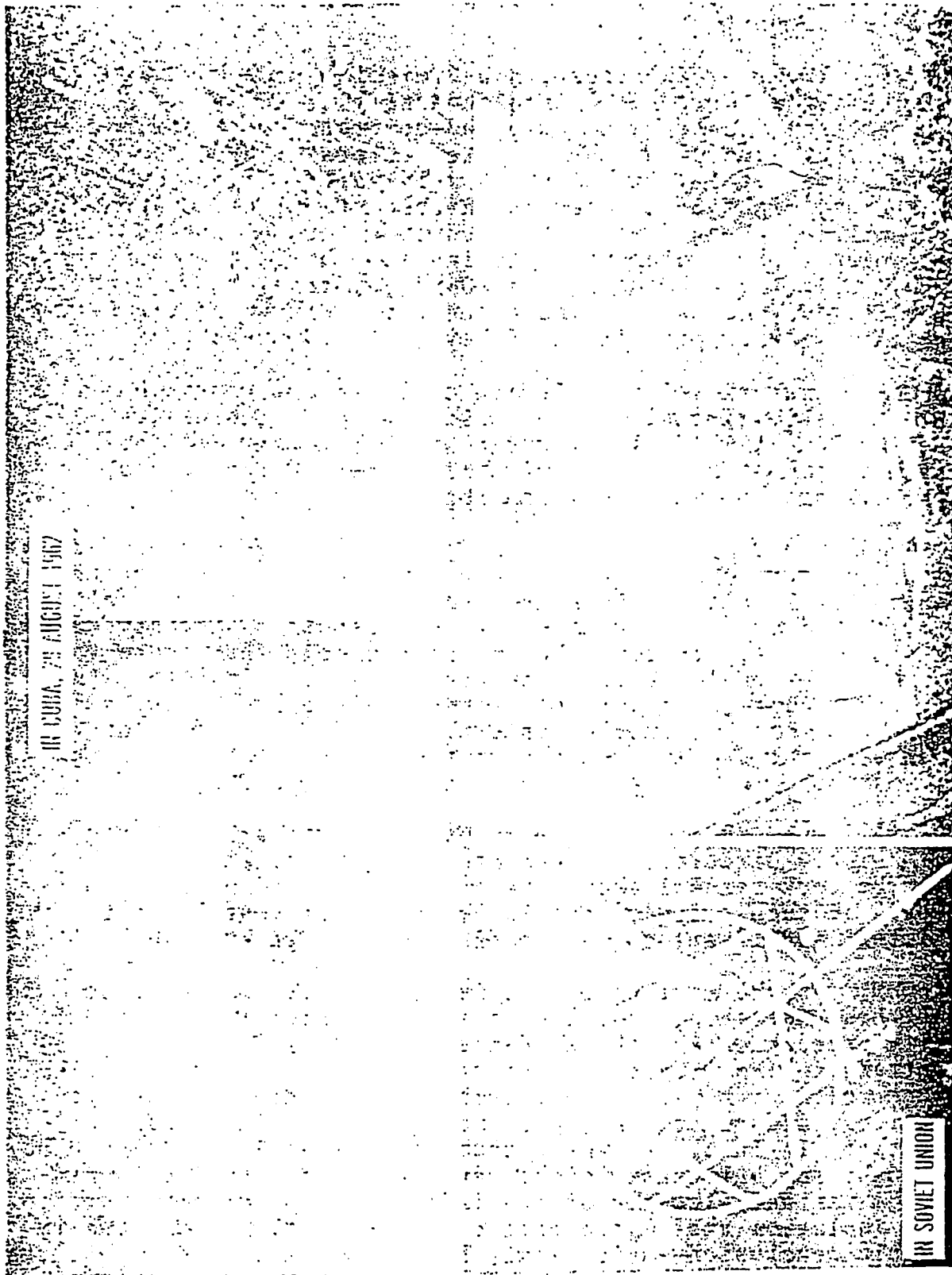
(S/NOFORN) As the meeting ended, General Carter lingered to make sure he had understood what the President wanted in the way of security protection for the evidence of offensive weapons. Was it contrary to the President's wishes for the analysts to talk back and forth with each other, compare knowledge, winnow out conclusions, and reject what was inconsistent? The President agreed that, in fact, he wanted them to. General Carter said he had thought so, but others might have felt that the President meant the various elements of the intelligence community were to stay in isolation and try to arrive independently at a mutually acceptable conclusion--which would have been hard to do. No, the President said. "Those people who need to know--those specialists, those experts who can talk to the photo interpreters, and with whom those photo interpreters can talk--can collectively

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(U) SAM SITES

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arrive at a decision." So the search for answers to the Cuban problem continued to involve a relatively large number of intelligence organizations and military commands.<sup>37</sup>

(S/NOFORN) Another U-2 mission on 5 September had brought back imagery of more SAM sites and a MIG-21 FISHBED, one of the latest Soviet fighters; but this was only more evidence of the defensive build-up. Then, on 9 September, something happened which caused a reassessment of the safety of the U-2 flights. A Chinese broadcast revealed that a Chinese Nationalist U-2 had been shot down over eastern China; and in Washington, analysts speculated that it had been brought down by an SA-2, the system credited with bringing down Gary Powers' aircraft in 1960. As soon as SA-2s had been identified in Cuba, higher echelons had regarded them as a threat to the U-2s, and transfer of the U-2 flights from CIA to SAC was being considered. SAC's 4080th Strategic Wing (SW) AT Laughlin AFB, Texas had been flying U-2s since 1957.\*<sup>38</sup>

(U) Meanwhile, on 10 September, the reconnaissance planners decided to change the flight pattern. Dean Rusk, the Secretary of State, suggested that instead of covering all of Cuba in one flight--up one side of a line through the middle of the island, then back down the other--the flights should be shorter and more frequent, dipping into Cuban airspace. He also proposed a larger number of peripheral flights that would gather intelligence from beyond the three-mile limit. The planners agreed to this and

\* (U/FOUO) From the time of its origin SAC had a strategic reconnaissance mission and until the mid-1950s had been the primary airborne strategic intelligence collector. Then, probably in the summer of 1954, when the U-2 was first being developed at Lockheed, a CIA representative called on General Lemay with a request that SAC pick up the operational aircraft. General Lemay summoned then-Col Robert N. Smith, who was still Chief of the Targets Analysis Division in SAC Intelligence, and Col William J. Crumm, Chief of the Operational Plans Division in the Directorate of Operations. They talked with the CIA representative, who outlined to General Lemay the capabilities of the aircraft that Clarence L. ("Kelly") Johnson was building at Lockheed. General Lemay thought the proposed schedule for the completion of the prototype was unrealistic; he told the CIA representative that SAC did not want to assume responsibility for the development of such a unique aircraft in such a short space of time. So CIA agreed to be responsible for the development of the aircraft, while SAC agreed to fly it operationally. In the end, because of a decision by President Eisenhower late in the year, CIA was given the primary operational responsibility as well as the responsibility for administration and management. The U-2 first flew, as "Kelly" Johnson had promised, in the summer of 1955. After it became a successful airplane and demonstrated its strategic value, SAC got its own U-2s; the first aircraft was delivered to the 4080th Strategic Wing in June 1957.

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also decided that flights should concentrate on the eastern half of Cuba, rather than on the western tip, where SAMs were known to be approaching operational readiness.<sup>39</sup>

(U) On 11 September, Moscow once again disclaimed any hostile intent in the Cuban build-up. But by that time, as analysis was later to show, the first medium range ballistic missiles (MRBMs) had already arrived in Cuba.<sup>40</sup>

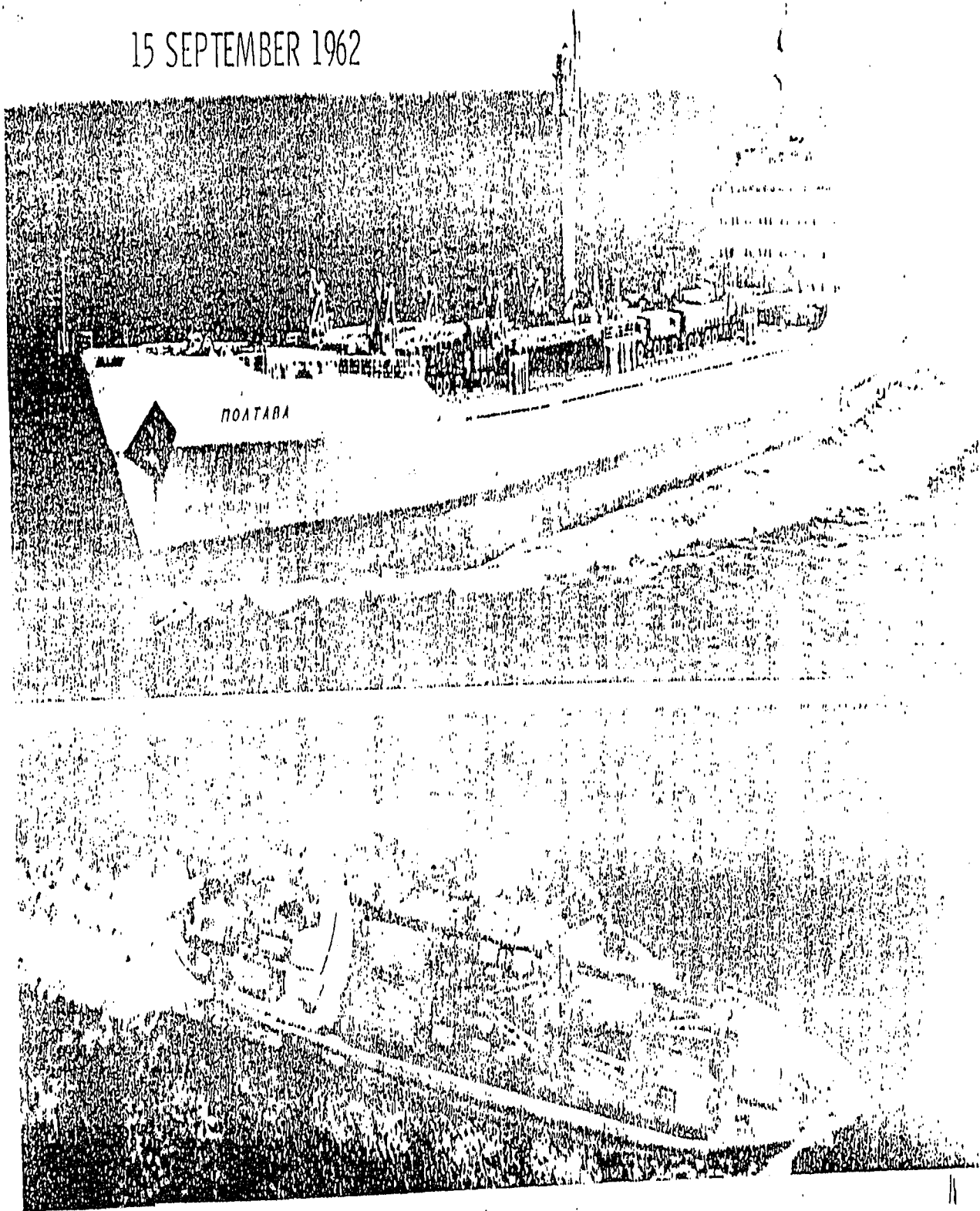
(S/NOFORN) On 13 September the President was told that the Banes site was definitely a defensive system, with a range of 25-30 nautical miles (NM). In a press conference later that day, he assured the American people that the new shipments to Cuba did not constitute a serious threat to any other part of the hemisphere. But he did not rule out the possibility that the build-up might become a threat, and he carefully listed the limits Cuba must not overstep. If Cuba ever became "an offensive military base of significant capacity for the Soviet Union," the United States would "do whatever must be done to protect its own security and that of its allies."<sup>41</sup>

(S/NOFORN) At this point electronic intelligence (ELINT) became a major factor in the continuing analysis of what was going on in Cuba. The missions which the 55th Strategic Reconnaissance Wing had flown in May had not been an isolated occurrence; since November 1960 the wing's RB-47s had taken part in the surveillance of Cuba. ELINT requirements were compiled by the 544th's Defense Analysis Center and provided to the 55th. From a specially designed compartment in the converted bomb bay of the RB-47H, electronic warfare officers intercepted and recorded signals from early warning, height finder, airborne intercept, and fire control radars. The ELINT data they collected was routinely forwarded to Offutt, where the Defense Analysis Center processed it. On 14 September 1962 the 55th had begun to fly higher headquarters directed COMMON CAUSE missions for surveillance of Cuba by means of ELINT and aerial photography. Analysis of ELINT gathered after the discovery of the SAMs confirmed that the latest SA-2 guidance radar, the C model of the FRUIT SET, was being used in Cuba.<sup>42</sup>

(S/NOFORN) The discovery of the short-range guided missiles at Banes had again heightened SAC's concern; the ELINT, providing further indications of SAM and radar locations, did nothing to lessen that concern. General Smith, Colonel Tighe, and sometimes General Power made several trips to Washington for intelligence sessions at the Pentagon.<sup>43</sup>

\* (U) The MRBMs are thought to have been brought in by the Omsk, arriving on 8 September, and the Poltava, arriving on 15 September. Both were built for the lumber trade, with exceptionally wide hatches; they carried trucks on deck and rode high in the water. Construction of the missile sites and deployment of the missiles and equipment apparently began between 15 and 20 September.

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(U) SOVIET SHIP POLTAVA IN ROUTE TO CUBA

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(S/NOFORN) One memorable trip was on 19 September, the day the highest assembly of the American intelligence community, the United States Intelligence Board (USIB), met to consider the question of Cuba. A U-2 mission on 17 September had been basically peripheral and added nothing new. SAC, however, held that there was enough other intelligence to indicate that there was something else in Cuba besides the short-range cruise missiles, and General Smith and Colonel Tighe were flown to Washington as back-up briefers. The Air Force's Assistant Chief of Staff, Intelligence (ACS/I), Maj Gen Robert A. Breitweiser, was present probably as a member of the Board, and General Smith and Colonel Tighe were allowed into the meeting.<sup>44</sup>

(S/NOFORN) The evidence they had to present was, once again, the result of all-source fusion. Besides the photographic evidence of the SA-2 sites in a barrier pattern--to deter reconnaissance, as SAC argued--they had human source intelligence on what was coming into Cuba and why, as well as some communications intelligence. Several times the ACS/I asked General Smith questions or referred to him, so he had the opportunity to present his case.<sup>45</sup>

(S) However, this estimate had been in the making for some days; the likely outcome of the meeting was, essentially, to put the USIB imprimatur on the final product of a laborious process. By the time the estimate reached the relatively few people on the Board, the original raw intelligence had gone through several stages of winnowing-out by an array of specialists. And in the end, after studying what was before it, the Board concluded that the Soviets' primary interest in Cuba was political, not military: "The USSR could derive considerable military advantage from the establishment of Soviet medium and intermediate range ballistic missiles in Cuba, or from the establishment of a Soviet submarine base there. . . . Either development, however, would be incompatible with Soviet practice to date and with Soviet policy as we presently estimate it."<sup>46</sup>

(S) They had their reasons. These included confidence in the specialists who had evaluated the information earlier, the scarcity of indications of the presence of strategic missiles, the failure of the U-2 photography to confirm the human source reporting and the pattern of Soviet foreign policy. Finally, they did not want to avoid making an estimate at all, but neither did they want to make a "worst case" estimate. But from the perspective of General Smith and Colonel Tighe, a "worst case" estimate was appropriate in this instance, to allow for military preparation and possible action.<sup>47</sup>

(S) Very soon, however, some much less vague and more reliable reports from observers in Cuba filtered up through the system. They included an advance report that an agent in Cuba had sighted the rear profile of a strategic missile on 12 September--a report that reached CIA and DIA on 21 September, followed by a "hard copy" report with a sketch on 27 September. Almost simultaneously with the advance report came reports that Castro's personal

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pilot had said Cuba had "many mobile ramps for intermediate range rockets" and that the Cuban war plans chief had said, "We have everything, including atomic weapons. . . . A thousand Soviet technicians are working day and night to build the nuclear weapons base." An observer reported IL-28 bomber crates arriving around 20 September--and he had identified them using a guide prepared by the cratologists. A source reported seeing on the Port Isabella docks metal cylinders 45-50 feet long by about five feet in diameter, which were later hauled away by trailer trucks.<sup>48</sup>

(S) Two more essentially peripheral U-2 flights, on 26 and 29 September, had brought back only more evidence of defensive systems. But by late September those making the decisions had concluded--primarily on the basis of the more credible ground observer reports after mid-September--that no matter how good the reasons for avoiding overflight of Cuba, the reasons for making a maximum effort were better.<sup>49</sup>

#### The Mission of 14 October (U)

(S) The last two U-2 missions of the CIA phase of surveillance, flown on 5 and 7 October, yielded only further evidence of the defensive build-up. But plans for renewed overflights were already close to realization.<sup>50</sup>

(U) Analysts at the upper level of the intelligence community had been studying the evidence of the earlier flights as well as the new reports out of Cuba. By late September Col John R. Wright, Jr., at DIA, who had been studying the pattern of SAM installations photographed over western Cuba on 5 September, had noted that the trapezoidal patterns of SAMs near the Cuban town of San Cristobal resembled SAM installations designed to protect strategic missiles in the Soviet Union. Between 27 September and 2 October, other DIA analysts were also led to the hypothesis that the Soviets were placing strategic missiles in the San Cristobal area. On 29 September the CIA characterized the central and western parts of Cuba as "suspicious" and on 3 October certified them the highest priority for aerial reconnaissance.<sup>51</sup>

(S) The all-source analysis at SAC was leading to similar conclusions about where the missiles probably were. SAC had long had a requirement to provide cloud-free photography of Cuba for the US, in order to maintain a current baseline photomosaic of the island--not an easy task, given the weather problems of the area. So the PIs in particular were very familiar with Cuban terrain, and by this time the all-source analysts may well have put together the kind of composite map they used when looking for Strategic Rocket Forces sites: a basic map with overlays showing road and rail networks and other features, allowing them to narrow the search to smaller and smaller areas. San Cristobal was one of the places they wanted to look at, too.<sup>52</sup>

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(S) At a special conference of the reconnaissance planners on 4 October, McCone proposed that the whole island be photographed at once, with special attention to the western end, which had not been photographed for a month. The State Department argued against this, spelling out the political consequences of the loss of a U-2 over Cuba. At this point Secretary of Defense Robert S. McNamara raised once more the issue of who should fly the mission: given the increased risk posed by the SAMs, the pilots should be officers in uniform rather than CIA agents. McCone objected that this was an intelligence operation and therefore within his jurisdiction; besides, the CIA "F" model U-2s had been modified in ways that gave them advantages over SAC's "A" model U-2s in avoiding SAMs. The discussion continued for several days, while planners considered the route. Colonel Wright had recommended to Lt Gen Joseph F. Carroll, the Director of DIA, that San Cristobal receive immediate photographic coverage; San Cristobal accordingly became part of the flight plan.<sup>53</sup>

(S/NOFORN) The planners approved the flight plan on 9 October, with the Air Force in charge of the mission but using the CIA's "F" model U-2s. President Kennedy authorized it the next day. General Power, General Smith, and SAC's Director of Operations, Maj Gen K. K. Compton were all in Europe attending a NATO conference; but SAC immediately notified the 4080th Strategic Wing at Laughlin AFB, Texas, to send a U-2 pilot to Edwards AFB, California, for "requalification training." Major Richard S. Heyser was selected and sent that night. The next day SAC told the 4080th to send Maj Rudolph Anderson, Jr., as well.<sup>54</sup>

(U) On Friday, 12 October, General Power was flying a KC-135 back from Europe to Omaha, with General Smith and General Compton. When they stopped in Bermuda to refuel, General Power received an urgent telephone call from Secretary of Defense Robert S. McNamara's office, telling him to come to the Pentagon immediately to discuss a matter of national concern. They flew directly to Washington, arriving in the early afternoon. General Power went in alone to see the Secretary of the Air Force, Eugene M. Zuckert, who told him about the high level of concern over Cuba and the decision to give SAC the overflight mission.<sup>55</sup>

(S) General Power, of course, was not surprised, since he had long since recognized Cuba as both an ever-worsening political problem and a mounting threat to SAC's southern bases; and SAC may possibly have informed him in Europe of the decision that sent Majors Heyser and Anderson to Edwards. Thus he needed no detailed explanations. A second meeting followed, in the "Tank," the room in the Pentagon where the Joint Chiefs of Staff (JCS) met.<sup>56</sup>

(U/FOUO) Colonel Tighe was also in Washington that afternoon. He had come to the Pentagon that morning to brief General LeMay and then returned to Offutt. But General LeMay had mentioned the briefing to others, and Colonel Tighe was asked to come back and brief at the JCS level. Afterwards, he encountered Gen Walter C.

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Sweeney, Jr., Commander of Tactical Air Command (TAC), and TAC's Director of Intelligence, Col Rockly Triantafellu, who were apparently on their way to the meeting in the "Tank".<sup>57</sup>

(S) Colonel Tighe was not allowed into the "Tank," but he waited to find out what was being decided. He knew there had been discussion of SAC's taking on the overflight mission, and he favored the concept, since the recent U-2 flights had not been getting photography of the areas SAC was interested in. Then General Smith came out of the "Tank" and told him they had won on that issue: SAC now had the mission of U-2 reconnaissance over Cuba.<sup>58</sup>

(S) Another issue discussed at the meeting in the "Tank" was the processing of the U-2 film. The Undersecretary of the Air Force had given SAC responsibility for supervising the delivery and processing of all original film from the U-2 mission. General Power promised that SAC would get the film to Washington in less time than the CIA had been getting the film through its own system, and that General Smith would personally courier it. General Smith guaranteed that it would get there if he had to fly the airplane himself. All this was to alleviate CIA's concern that SAC might make the material "SAC only," when it was of national interest, to be used for the decision-making of the President. CIA was very reluctant to give up responsibility for the overflights; they wanted at least to be sure NPIC could look at the film.<sup>59</sup>

(S) After the meeting, General Power, General Smith, and General Compton resumed their journey to Offutt. While still on the airplane, General Power started to put SAC's well-oiled machinery into high gear. General Compton was given the job of getting the U-2s ready for a flight on Sunday; it could not be done any sooner, because a hurricane was in progress in the Cuban area. A team of officers and airmen capable of launching an "F" model U-2 was instructed to go to Edwards, where Major Heyser was being checked out in the "F" model.<sup>60</sup>

(S) Getting ready for the flight itself kept both SAC's operational planners and the people at Edwards busy during most of Saturday, 13 October, and well into Saturday night. The SAC support team arrived at Edwards on Saturday, and the two "F" models intended for the operation were painted with USAF insignia.<sup>61</sup>

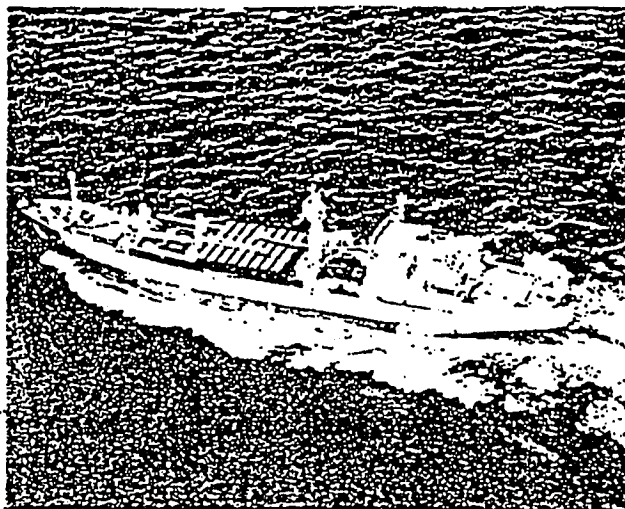
(S) Also on 13 October, the 55 SRW had been directed to fly BLUE INK weather reconnaissance missions of Cuban coastal areas, since weather was an important factor in planning U-2 flights. Immediately the 55th established an operating location at MacDill AFB, Florida, and flew the initial BLUE INK sortie. The hurricane proved to be gone. The weather information was relayed to SAC by radio, and the first U-2 launch was planned for late that night.<sup>62</sup>

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(S) [REDACTED] Intelligence preparations were equally intense. To add to the concern, on 10 October one more piece of evidence had reached the cratclogists: pictures taken on 28 September, showing a Soviet ship carrying 10 crates which could only contain IL-28 bombers. This was the first direct evidence of a radical change in the nature of the military buildup in Cuba.<sup>63</sup>



(U) BEAGLE BOMBERS BEING DELIVERED TO CUBA

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(S) Colonel Keegan's Air Estimates Division had been fully involved in the Cuban problem for some time, probably at least since the finding of the short-range cruise missiles at Banes.

Now it was time for the division's Penetration Analysis Section, under Lt Col Harry N. Cordes,\* to check the flight plan which CIA had provided for the U-2 mission. SAC had a great deal of experience in air defense analysis because of its strategic mission and the need to determine the most viable penetration areas of the Soviet Union, and for years the command had flown FIINT reconnaissance missions along Soviet borders. Now the information from the 55 SRW's COMCON CAUSL missions, analyzed by the 544th's Defense Analysis Center, allowed the Penetration Analysis Section to discover a major difficulty with the flight plan: it placed the U-2 within effective range of one of the SAM sites west of Havana. SAC altered the route slightly, so that the first U-2 would fly between the extreme ranges of two SA-2 sites and still directly overfly the areas of interest.<sup>64</sup>

(S) Another necessity was the updating of the Committee on Military Overhead Requirements (COMAR) list. This was a list of imagery collection requirements maintained by the Directorate of Intelligence's Targets Division--specifically by Capt James C. Enney,\* the air targets officer of the Military Section of the division's Research Branch and, under the "dual-hat" concept, also of the Research Section, Targets Branch, JSTPS. That Saturday night Captain Enney had been planning to go to a SAC Intelligence party, but instead he was called to deal with the COMAR list. The branch office was collocated with the Research Center in BB-18, an area in the basement of SAC headquarters, with immediate access to the PIs and all-source analysts. Captain Enney

\* (U) Colonel Cordes and Captain Enney both eventually became major generals and served as SAC's DCS/Intelligence.

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found that he had to add several more places to the list, based on human source reporting; but the high-interest areas such as San Cristobal and Remedios were already on the original list that had come down from Washington.<sup>65</sup>

(S/NOFORN) Half an hour before midnight on 13 October, Major Heyser, who had been assigned the first mission, climbed into the "F" model and took off for the long flight to Cuba. The skies over the island were clear. Approaching from the south, and using the Isle of Pines as the initial point, Major Heyser crossed the Cuban coastline at 1237Z--0737 Eastern Standard Time (EST)--at an average altitude of 72,500 feet. Six minutes later he crossed the north coast and changed course for Florida. There had been no ground fire or any other encounter with Cuba's new defenses. He touched down at McCoy AFB, Florida, at 0920 EST.<sup>66</sup>

(S) General Smith was waiting at McCoy to receive the film rolls from the main camera and courier them to Washington. The main camera film was unloaded, placed in shipping containers, and rushed to General Smith's KC-135. The film from the tracker camera--which everyone outside SAC thought of solely as navigation film--was loaded on another aircraft, probably a T-39, to be flown to Offutt for processing and readout.<sup>67</sup>

(S/NOFORN) General Smith's KC-135 reached Andrews-APB in the early afternoon. There a slight hiatus occurred: he had been given a list of people to whom the film could be delivered, and instructed to give it to no one else under any circumstances. The people who were waiting at Andrews to receive the film were not on the list. It was about half an hour before matters were sorted out and authorized people arrived to accept the film. Then General Smith flew back to Omaha, while the main camera film was taken to the Naval Photographic Interpretation Center (NAVPIC) at Suitland, Maryland, one of several locations where the film from the missions over Cuba was to be processed.\*<sup>68</sup>

(S) Meanwhile the aircraft with the tracker film flew to Offutt and landed. The film had to be processed at once and sent to NPIC in time for use with the readout of the main camera film, so that exact locations could be determined. It was taken immediately to the 544th's Special Projects Lab Branch, a subdivision of the Target Materials Center, which did all classified photo-processing at Offutt. The Special Projects Lab was also located in the basement of SAC headquarters, immediately south of the Research Center.<sup>69</sup>

(S) The 544th had its best PIs on duty waiting for the film to come out of the lab. Major Calvin B. Olsen, officer in charge of the Research Center's Immediate Interpretation Section, was one

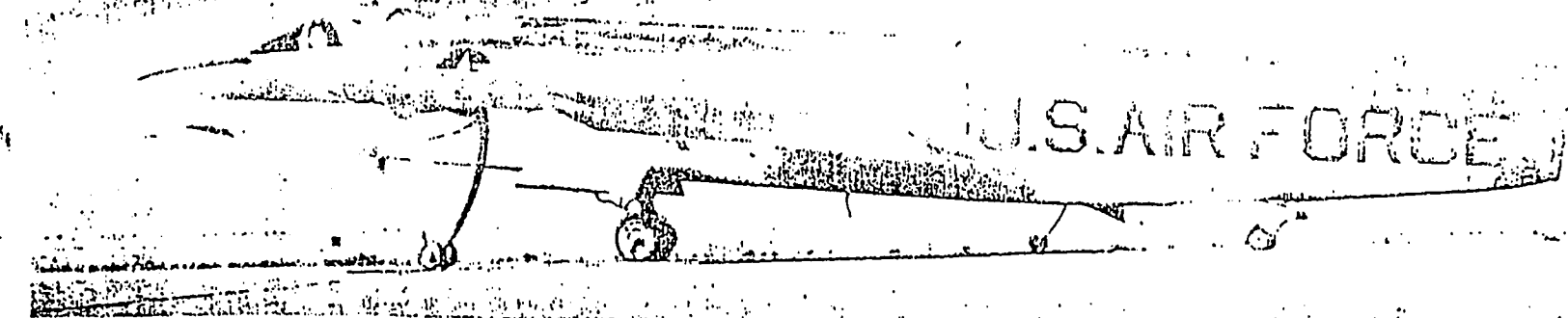
\* (S) The processing locations eventually included not only NAVPIC but also the 6594th Aerospace Test Squadron at Westover AFB, Massachusetts; the 4080th Strategic Wing at Laughlin AFB, Texas; the 15th Reconnaissance Technical Squadron at March AFB, California; and Offutt itself. Photo processing people from the 544th deployed to several of these places to assist on the processing.

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(U) U-2 AIRCRAFT

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of these. He acted as sponsor for a team of eight young airmen PIs, all of whom were either college students or college graduates. Airman First Class Michael Davis, a member of of this team and one of the sharpest young PIs, had been called in because of his experience in the exploitation of missile sites.<sup>70</sup>

(U/FOUO) Around three o'clock on Sunday afternoon, Major Olsen telephoned Colonel Tighe at home and told him the film was about to be ready. Colonel Tighe and Maj William E. Callanan, the assistant chief of the Research Center, went to BB-18 to see it.<sup>71</sup>

(S) Major Olsen and Airman Davis were working in a small room towards the far end of BB-18, one of several rooms used for detailed photo interpretation. They scanned through the film, looking at it in a viewer and under stereo. Both had been very much interested in the Cuban problem and knew the terrain very well, so they had no trouble orienting themselves. They knew where they wanted to look, and very soon Airman Davis sighted MRBMs on trailers. Thus it was that he and Major Olsen became the first Americans to see the photographic evidence of the Soviet strategic missiles in Cuba.<sup>72</sup>

(S) Colonel Tighe called General Smith, who came and looked at the film as well. It was perhaps at this point that the PIs found out that they were not expected to send out a Uniform Photo Interpretation Report (UPIR)\* to SAC's usual intelligence customers. NPIC had claimed the right to make the determination, from the main camera film, on what was in Cuba. All NPIC had expected them to do was what PIs usually did with tracker film: plot the route of the aircraft and determine where the cloud cover was. Probably no one in Washington had even imagined they could do what they had just done.<sup>73</sup>

(S) Nevertheless, SAC Intelligence was now sure that there were Soviet offensive missiles in Cuba. General Smith immediately informed General Power, and General Power undoubtedly passed the word to General LeMay before the day was out.<sup>74</sup>

(S) General Smith also directed the chief of the Special Projects Lab, 1st Lt William B. Sullivan, to make a copy of the tracker film for the Research Center, since General Power wanted to be briefed. The PI work went on far into the night. The tracker film which would go to NPIC was done first, probably on the prototype Variscan viewer which allowed the PIs to enlarge the image so they could more quickly identify the location of the aircraft and determine where the clouds were. This film was dispatched to Washington, probably by T-39, to be available for the readout of the main camera film. Then the areas of interest on the Research

\* (U/FOUO) The UPIR (pronounced "youper") was the first DOD attempt to create a uniform photo interpretation report, a forerunner of the Immediate Photo Interpretation Report (IPIR) and the Supplemental Photo Interpretation Report (SUPIR).

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Center's copy were enlarged to make very large briefing boards for General Power. It was very high quality photography, and the PIs were able to distinguish a remarkable amount of detail.<sup>75</sup>

(S) During this eventful day a second "F" model had been made ready at Edwards, and Major Anderson had been checked out in it. That evening it was ferried to McCoy, while Major Anderson was flown to McCoy as a passenger on a KC-135.<sup>76</sup>

(S/NOFORN) In Washington, through the night the photo processing specialists at NAVPIC developed the negatives of the main camera film and made the duplicate positives--the special prints on clear acetate which the PIs could study over the light tables. A set of positives was delivered to NPIC in the morning.<sup>77</sup>

(S/NOFORN) What happened at NPIC has been documented in detail and is fairly representative of the photographic interpretation procedures of the time. The eight cans of film were delivered at midmorning on 15 October and were quickly distributed among the waiting PI teams. Since this had been a short mission, there were only three teams, of two PIs each, composed of CIA, Air Force, Army, and Navy people. The two cans of film of the San Cristobal area went to the team of Gene Lydon, a CIA PI, and Jim Holmes, an Air Force civilian PI.<sup>78</sup>

(S/NOFORN) Scanning the countryside, they spotted military vehicles, tents, and equipment that suggested preparatory work for developing SA-2 sites. They searched for the FRUIT SET guidance radar and SAM launchers. There were none. Because of the Banes site, they searched next for cruise missile launchers and attendant guidance radars. There were none.<sup>79</sup>

(S/NOFORN) Then they saw six long canvas-covered objects. Lydon and Holmes measured the objects several times: they were over 60 feet long.<sup>80</sup>

(S/NOFORN) "Possibly missile-associated installations," they concluded. The film was turned over to the missile back-up team. Holmes was the Air Force representative on this team too, along with 2nd Lt Richard Rininger for the Army, civilian Joe Sullivan for the Navy, and Vince Di Renzo, the team leader, for the CIA. After a systematic analysis of the photography, the team determined that the six objects were missile transporters. The measurements, computed manually by all members of the team, were consistently in the 60- to 75-foot range. The position and size of the equipment did not correspond to anything they had seen before.<sup>81</sup>

(S/NOFORN) Di Renzo called in Jay Quantrill, an all-source intelligence analyst specializing in SAMs and MRBMs. Quantrill searched his looseleaf volumes of photographs taken at Moscow parades and from Soviet handbooks, settling finally on a full side view of a missile--an SS-4. Di Renzo said that looked like it. He contacted his chief and announced, "We've got MRBMs in Cuba." He was told to check again. This was one time the intelligence community had to be right.<sup>82</sup>

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(U) SAN CRISTOBAL MRBM SITE 1, 14 OCTOBER 1962



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(S/NOFORN) While the PIs at NPIC checked their work, the word that something was happening began to go out to the most senior members of the national-level intelligence community. NPIC at that time had closer ties with DIA than was later the case; and in the early evening Dave Parker, NPIC's deputy director, called John Hughes, a special assistant to the director of DIA, and asked him to come in and look at what appeared to be an important discovery.<sup>83</sup>

(S/NOFORN) John Hughes had been an Army photo interpreter at NPIC whose specialty was missiles. When he left the Army, Lt Gen Joseph F. Carroll, the first Director of DIA, had asked him to become a special assistant. Now he came to the Center, looked at the photographs, talked with the PIs, and made up his mind. Convinced that these were offensive missiles, he went to inform General Carroll. After hearing the evidence, General Carroll sent him and another analyst to brief the deputy Secretary of Defense, Roswell Gilpatric. John Hughes presented the facts from notes and told Gilpatric the photography would be available the next day. Gilpatric asked Hughes to be ready to brief the Secretary of Defense first thing in the morning.\*<sup>84</sup>

(S/NOFORN) Through the night, PIs and analysts worked to confirm the identification of the missiles as the then-advanced SS-4, to plot ranges, to locate the site precisely, to determine what should be said at the White House. As the search went on, a second MRBM site was found, then the beginnings of a third.<sup>85</sup>

(S/NOFORN) Arthur C. Lundahl, the Director of NPIC, had been one of the first to know what his missile back-up team had found. He returned at 0600 on 16 October to review the briefing boards and background notes which had been prepared during the night. At 0730 he briefed Ray Cline, the Deputy Director for Intelligence at CIA headquarters. Then Lundahl, Cline, and a few others proceeded to the White House.<sup>86</sup>

(S/NOFORN) There they briefed McGeorge Bundy, the President's special assistant for national security affairs, who informed President Kennedy that there was now hard evidence of the presence of offensive missiles in Cuba. The President directed him to set up an extraordinary meeting at 1145 to hear the briefing. In the interim, the CIA representatives informally briefed Attorney General Robert Kennedy and the Secretary of the Treasury. The Secretary of Defense had been briefed by John Hughes and General Carroll before he arrived. (He reportedly said, after that briefing or at some other point during the crisis, "The next time I want to know what's going on, I'll ask the 544th"--apparently with reference to Colonel Tighe's briefings.)<sup>87</sup>

\* (U) Later, on 6 February 1963, Hughes and Secretary of Defense McNamara appeared on national television to give a detailed photographic review of the introduction of Soviet military personnel and equipment into Cuba--especially the introduction and removal of the missiles.

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(S/NOFORN) The group assembled at a table in the Cabinet Room. The President arrived promptly and asked General Carter--again acting for McCone, who was on the West Coast--to proceed. General Carter and Arthur Lundahl briefed the President and showed the photographs. Sidney Graybeal, the CIA's missile expert, answered the President's questions about the system. It was clear that much still had to be learned. At the end, the President said he wanted to express the nation's gratitude to the men who had collected the photographs and to the photo analysts for finding and analyzing the missiles.<sup>88</sup>

(U) But the maximum effort was still in its early stages. The Cuban missile crisis was just beginning.<sup>89</sup>

Maximum Effort (U)

(U) To most of the group that met with the President on that Tuesday morning, the U-2 photography by itself revealed little. All they could really distinguish were cleared areas that could as easily have been intended for farming or for the building of a house. Most of them, including President Kennedy, had to take the word of the intelligence community that the activity near San Cristobal was the construction of missile bases.\*<sup>90</sup>

(U) This group--which later came to be known as the Executive Committee of the National Security Council, or ExComm--was to meet almost continuously for the next 12 days and almost daily for some six weeks thereafter. Besides the President, his brother the Attorney General, and at times the Vice President, it included Secretary of State Dean Rusk; Secretary of Defense Robert McNamara; General Maxwell Taylor, Chairman of the Joint Chiefs of Staff; CIA Director John McCone; and several other individuals on whose judgment the President had come to rely. These people made the key decisions of the Cuban missile crisis.<sup>91</sup>

(U) The dominant feeling that morning was stunned surprise. Clearly some form of action was required--perhaps an air strike on the missile sites. Kennedy's first decision was to order a sharp increase in the number of U-2 flights. His second was that there must be no disclosure of the presence of the missiles until he had decided what to do about them.<sup>92</sup>

(U/FOUO) After the ExComm meeting, the question of who would fly the missions came up one last time. General Smith and General Compton were in McGeorge Bundy's office in the White House basement, presumably waiting to find out what was being decided. Some ExComm members were present, notably John McCone and General Maxwell Taylor, as well as McGeorge Bundy and other senior people.

\* (U/FOUO) Both the President and the Attorney General became intensely interested in imagery intelligence. A visit by Robert Kennedy to NPIC apparently resulted in NPIC's getting a new building.

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McConc once again raised the issue of whether the overflights of Cuba should be a CIA mission--as he strongly believed--since this was an intelligence matter. General Taylor believed equally strongly that the flights were a military mission; the missiles were there, and war planning, targeting, and the like were now part of the problem. Since they could not agree, McGeorge Bundy suggested that they talk to the President. The three went to the Oval Office and returned about twenty minutes later with the President's decision: the U-2 flights over Cuba were a military mission.<sup>93</sup>

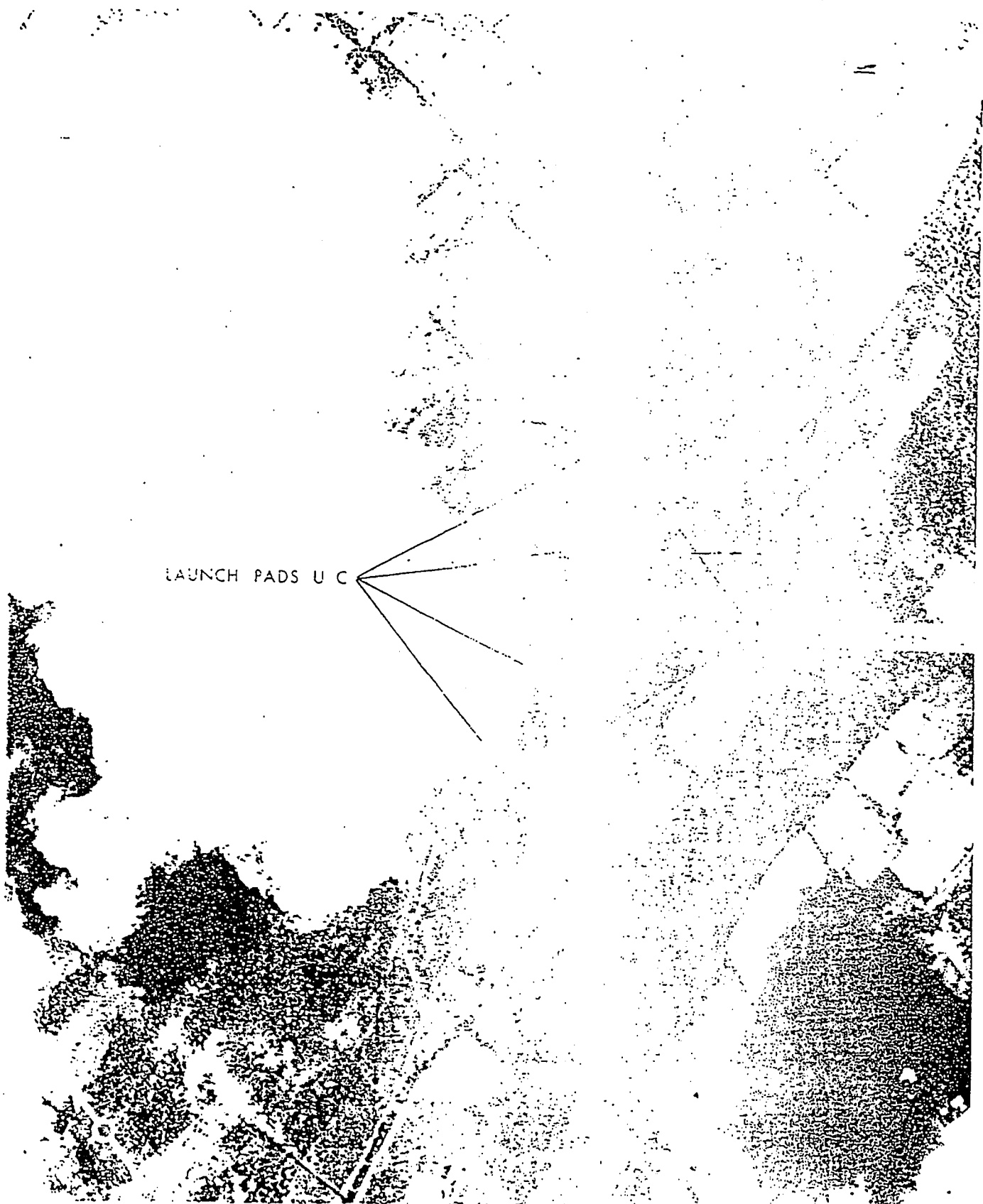
(S) More U-2 flights had already taken place. On 15 October Major Heyser and Major Anderson had overflown Cuba, bringing back more imagery of San Cristobal as well as other areas. Even though the Soviets had apparently known about U-2 surveillance of Cuba since at least March, no efforts were being made to camouflage what was going on. Photo interpreters were able to identify missile hold tents at the third San Cristobal MRBM site, which had been bare of everything but arriving equipment the day before. Along with the tents, pads and missile emplacements were emerging, and concrete arches for a bunkered nuclear storage facility were visible. The evidence of detailed preplanning and urgency was clear at other sites. IL-28 bomber crates were lined up at San Julian Airfield, in readiness for assembly. A SAM site at Bahia Honda was operational, with missiles visible on every other launcher. Most ominous of all were two sites--at Guanajay, with four pads each and a bunker in between. They were similar to IRBM sites identified in the USSR and were estimated to be intended for the SS-5, one of the Soviets' most advanced missile systems at the time, with a range of over 2,000 NM.<sup>94</sup>

(S) At McCoy, on the evening of 16 October, Col Ellsworth A. Powell of Headquarters SAC reconnaissance arrived with a TOP SECRET operations order, BRASS KNOB, which outlined requirements for aerial photographic reconnaissance over Cuba. The operations order called for a maximum effort. The following day six U-2 aircraft were to fly sorties over Cuba.<sup>95</sup>

(S) With the sharp increase in U-2 overflights, more SAC pilots and SAC "A" model U-2s had to be brought into the program. These pilots were Maj Buddy L. Brown, Maj James A. Qualls, Maj Edwin G. Emerling, Capt Gerald E. McIlmoyle, Capt Roger H. Herman, Capt Charles Kern, Capt Robert L. Primrose, Capt David W. Schmarr, and Capt George M. Bull.<sup>96</sup>

(S) Of the six missions of 17 October, four were launched from Laughlin in "A" models flown by Majors Brown and Qualls and Captains Herman and Bull, three taking off in a spot thunderstorm well before daylight, the fourth--Major Brown--shortly after noon. The other two missions were flown by Majors Heyser and Anderson out of McCoy in mid-morning. Major Qualls and Captains Herman and Bull landed at Laughlin. A SAC T-39 aircraft was waiting at Laughlin when the U-2s returned. The T-39 flew the

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LAUNCH PADS U C

The image is a high-contrast, grainy aerial photograph of a coastal area. In the lower-left, there is a dark, irregularly shaped landmass. To its right, a lighter, more uniform area, likely water or a flat plain, extends towards the right edge. Several thin, straight lines are drawn on the lighter area, radiating from a point labeled 'LAUNCH PADS U C'. These lines appear to be annotations or survey markers. The overall image quality is poor, with significant noise and high contrast.

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tracker film, immediately after it was downloaded from the U-2 aircraft, to the 544th at Offutt for immediate processing and readout. The remainder was processed by the 4080 SW Reconnaissance Technical Lab.<sup>97</sup>

(S) The film from the U-2s that landed at Laughlin provided the third major discovery of the Cuban missile crisis. Capt Bull had obtained photography on which the PIs were able to identify two more MRBM sites, under construction at Sagua La Grande.<sup>98</sup>

(S) Majors Heyser, Anderson, and Brown all landed at McCoy. Their film was ferried to NAVPIC for processing, and the intelligence derived from their film was in the hands of Defense Department officials within a few hours after the U-2s landed. Major Heyser brought back photography on which the PIs identified what appeared to be a missile fuel storage farm--since the missiles were liquid fueled, they required significant storage facilities. Major Anderson had flown over San Cristobal and Guanajay to obtain new coverage; from that film, the intelligence analysts estimated that the MRBM sites would have a refire capability and that the IRBMs at Guanajay would attain an emergency combat capability as soon as 15 November. Major Brown, overflying San Julian Airfield, had obtained photography revealing the ongoing assembly of the IL-28 bombers, with one already complete. It appeared that all the systems in Cuba would have full operational capability by mid-December.<sup>99</sup>

(U/FOUO) At Headquarters SAC during these first tense days of the crisis, all the people who were working on the Cuban problem were set aside from the rest, keeping the entire situation on very close hold. Almost without exception they were SAC people, though General Smith allowed a few JSTPS people, such as an Army defense analysis expert in Target Development, to be brought in on it. One of the others, Col Clarence E. Becker, Chief of the JSTPS Targets Branch, asked Captain Enney, "What's all the excitement about?" Captain Enney had to tell him, "I don't know, Colonel." Colonel Becker persisted, "You don't know, or you can't tell me?" Captain Enney had to admit, "The latter."<sup>100</sup>

(S) During this period the main camera film was being processed at various locations on the East Coast, except for the tracker film, which came directly to Offutt for processing by the 544th throughout the crisis. SAC aircraft maintained a nationwide pickup and delivery service for the film, with General Smith couriering much of it himself.<sup>101</sup>

(S) There was no longer any significant delay in getting main camera photography. As soon as possible after the original film was developed, typically within eight hours to a day and a half, SAC received a duplicate negative which was also couriered to Offutt. NPIC's PI reports also arrived speedily, and the photo interpreters at SAC used the information and the photography to make, among other things, a complete mosaic showing the missile sites.<sup>102</sup>

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(U) GENERAL POWER WITH U-2 PILOTS

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Left to right standing: General Power; Major Edwin Emerling; Major Buddy Brown; Major Richard Heyser; Major James Qualls; Captain Roger Herman; Colonel John Des Portes, commander of the 4080th Strategic Wing.

Kneeling: Captain George Bull; Captain Charles Kern; Captain Gerald McIlmoyle; Captain Robert Primrose; and Captain Daniel Schmarr.

[REDACTED]

(S) The 544th's Trajectory Center also used the photography to determine the intended targets of the missiles. The Soviets had developed a navigation and trajectory system, originally pioneered during World War II by the Germans, which required the launch pads actually to be oriented in the direction in which the missile was supposed to go. One of the Trajectory Center's responsibilities was to determine the planned targets of missile sites in the Soviet Union. Now they did the same for the sites in Cuba, finding that they were oriented toward major military and command-and-control installations, including Washington.<sup>103</sup>

(U) Since the afternoon of 16 October, the U-2 photography had come before the US Intelligence Board so that they could examine it and estimate the degree of danger. On 17 October they produced their first estimate based on the intensified U-2 overflights. There was no more room for doubt: two kinds of offensive weapons were going into place, a movable MRBM, which would be on the pads and ready for firing within about 10 days, and an IRBM with a range of over 2,000 miles. If both types were operational, the Soviets would be able to deliver an initial salvo of nuclear warheads on targets in the US as far away as Wyoming and Montana. The next day, Thursday, the USIB was able to estimate that the missiles in Cuba would have a nuclear warhead potential of about half the estimated ICBM capacity of the entire Soviet Union.<sup>104</sup>

(U) Within ExComm, there was no dispute over the tremendous challenge to American prestige which the missiles represented. The overhanging question, still unanswered, was how to get them out of Cuba without war. Late in the evening of 18 October, members were still debating whether the best course of action was an air strike or a naval blockade. The trend favored a US naval blockade of Cuba, in which all ships approaching Cuba would be inspected. This would leave the President several other options if it proved unsuccessful. By Friday night there was broad agreement that the blockade would be the best and least provocative response, with further armed action to follow if necessary.<sup>105</sup>

(S) Meanwhile the reconnaissance and analysis went on. On 18 October Majors Heyser and Anderson flew again; Major Heyser brought back photography of a third IRBM site, this one at Remedios. On 19 October another MRBM site was identified at San Cristobal.<sup>106</sup>

(S) Since SAC was flying the missions, the intensity of activity within SAC Intelligence was at a peak that had never been seen before. In addition to the tracker film, copies of the main camera photography were reaching SAC by plane within hours of the original processing. The PIs of the 544th picked out areas that had something significant on them and had enlargements made for further analysis. The information from the imagery was plotted and its intelligence worth evaluated. Briefings were made up and presented to CINCSAC; the briefing boards were couriered to Washington, where the SAC analysis was presented to Air Force

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(U) SAC PHOTO INTERPRETERS ASSESS RECONNAISSANCE FILM SHOT OVER CUBA

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Intelligence, the Chief of Staff of the Air Force, and DIA and compared with their own analysis and that of NPIC and others in the Washington area, to determine what should be briefed to the President.<sup>107</sup>

(S) An important part of the SAC analysis was derived from ELINT. The RB-47 aircraft of the 55 SRW were still flying their COMMON CAUSE missions for the surveillance of Cuba by means of both ELINT and aerial photography. On 13 October the 55th had set up an operating location at MacDill AFB, Florida, to support the COMMON CAUSE missions, and on 14 October SAC raised the requirement to two missions a day. All the material was sent back to Headquarters SAC for evaluation, as well as the ELINT from the U-2 missions. The ELINT specialists in the 544th's Defense Analysis Center processed the data and made a study of Cuban defense elements, matching the ELINT with the photography and determining the location of SAMs and radars. By 20 October all-source analysis had established the offensive order of battle in Cuba as six MRBM (SS-4) sites with 24 launchers, three IRBM (SS-5) sites with 12 launchers, and 42 IL-28 bombers. MRBMs had been seen at some sites, but no IRBMs--those were still at sea.<sup>108</sup>

(S) By 20 October, SAC U-2 activities at McCoy had become almost a routine operation. Colonel Keegan of the Air Estimates Division had taken over a part of General Smith's role as SAC Intelligence representative at McCoy, flying back and forth from Offutt on the T-39s. Additional crews and support personnel flown in from Laughlin AFB, Texas, brought the SAC complement at what was now an operating location to 11 pilots, four navigators, and 68 airmen.<sup>109</sup>

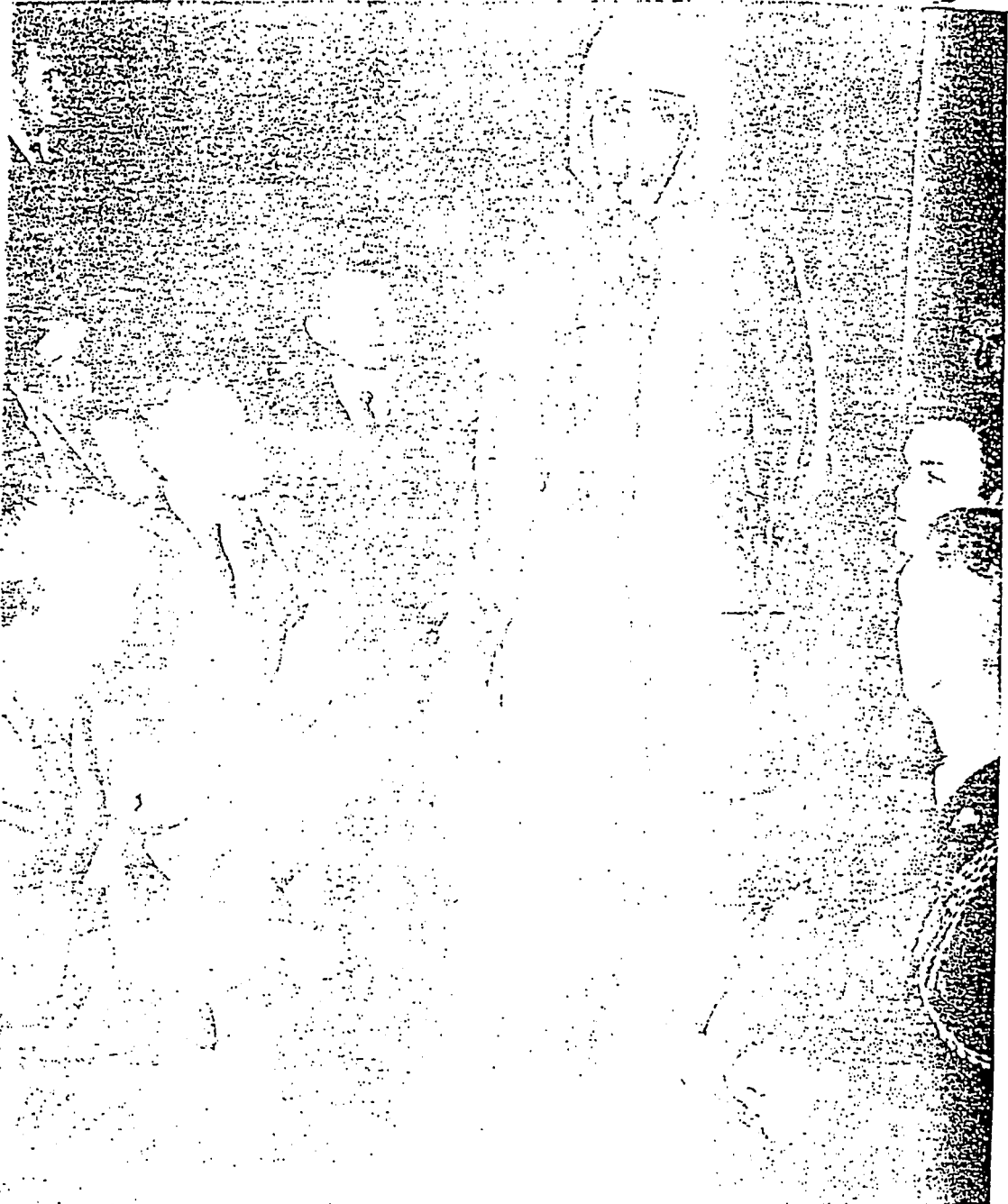
(S) The day of a U-2 pilot slated to overfly Cuba began soon after midnight, when he awoke, ate, and went to the Operations building for his preflight briefing. By that time the operations planners had completed his mission folder, using information received the evening before from the SAC Reconnaissance Control Center at Offutt. Navigation, intelligence, and weather were the main topics of the briefing. Two hours before takeoff the pilot had a medical check and began to put on his pressure suit; one hour before takeoff, he began to breathe 100 percent oxygen. Preliminary cockpit checks occupied the time just before launch. Pilots usually left McCoy about 0800 local time, and missions lasted two to five hours. As Major Heyser described it, "It felt like we had done this type of work so much it was another day's activities--except you could hardly get away from the idea that it was considerably more important than a normal routine day." Three missions flew on 20 October, and three more on both 22 and 23 October.<sup>110</sup>

(U) Meanwhile the national military alert had begun. On the afternoon of 19 October, messages had gone to the Atlantic and Caribbean commands, warning of possible air attacks from Cuba, and US SAM batteries had been directed to increase their readiness. On the morning of the 20th, the JCS sent a cautious signal to CINCSAC and all other commanders in chief around the world,

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(U) U-2 PILOT IN FLIGHT GEAR

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TENT AREA

(U) REMEDIOS IRBM SITE. 19 OCTOBER 1962

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saying that unspecified tensions in Cuba could call for military action before long. That afternoon, when the President met with ExComm, the decision was made to begin with the blockade and, if need be, move up the ladder of military responses rung by rung. On the afternoon of 21 October, the National Security Council ratified the decisions already hammered out by ExComm.<sup>111</sup>

(U) CIA representatives had left that morning to brief the governments of the United Kingdom, France, the Federal Republic of Germany, and Canada. On Monday, 22 October, some hours before the President was to address the nation on television, the allies were shown the photographic evidence. All accepted the testimony of the briefers.<sup>112</sup>

(S) On the morning of 22 October, the JCS issued a blockade-planning directive to the Atlantic Fleet. SAC missile crews were ordered to maximum alert. At noon, from the SAC underground Command Post at Offutt, General Power started dispersing his B-47 bombers to military and civilian airports in various parts of the country, each with its assigned load of nuclear weapons. He ordered an unprecedented one-eighth of the B-52 bomber force into the air. For 30 days and nights thereafter, part of the B-52 force was in the air at all times, in the biggest airborne alert in SAC's history. The Army and the Navy likewise made their preparations. It was the swiftest, smoothest military build-up in the history of the US, with every major unit in position before the President addressed the nation.<sup>113</sup>

(U/FOUO) At SAC, a good many people were on duty that evening, because much of the headquarters was operating 24 hours a day, with people working 12- and 14-hour shifts. As the hour approached, those who could sought out television sets to follow the President's speech. There was a set in SAC's Indications and Warning Center, and Captain Enney went down to watch there.<sup>114</sup>

(U) At seven o'clock that evening, the President began his speech. "The Government, as promised, has maintained the closest surveillance of the Soviet military build-up on the island of Cuba. Within the past week, unmistakable evidence has established the fact that a series of offensive missile sites is now in preparation on that imprisoned island. The purpose of these bases can be none other than to provide a nuclear strike capability against the Western Hemisphere...." He outlined the threat posed by the MRBMs, the IRBMs, and the jet bombers and catalogued the long series of Soviet deceptions. Making it very clear that the United States would not accept this "deliberately provocative and unjustified change in the status quo," he outlined his intentions: a defensive quarantine in which all ships bound for Cuba with offensive weapons would be turned back, continued close surveillance, an immediate meeting of the Organization of American States (OAS) to invoke the Rio Treaty, an emergency meeting of the United Nations (UN) Security Council, and more. He called finally upon Khrushchev to halt the threat to world peace by withdrawing the offensive weapons from Cuba.<sup>115</sup>

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(U) GENERAL POWER AND STAFF IN UNDERGROUND COMMAND POST

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Left to right: Brig Gen Robert N. Smith; Maj Gen James W. Wilson; Gen Thomas S. Power; Maj Gen Keith K. Compton; Lt Gen Hunter Harris, Jr.

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(S) The next day, 23 October, the OAS voted unanimously to support a US-resolution authorizing the use of force in a blockade of Cuba. At the Pentagon that evening, McNamara announced that the latest U-2 photographs showed work going ahead on the Cuban missile sites and 25 Soviet ships on the way, their course unchanged in the past 24 hours. That day, special low-level reconnaissance flights by Navy aircraft had begun, to keep abreast of work on the missile sites. From then into early November, the continuing SAC surveillance was augmented by Navy and TAC low-level sorties, which proved very useful in the technical evaluation of equipment capabilities at installations pinpointed earlier by the U-2 photography.<sup>116</sup>

(U) SAC also had a hand in the TAC operation at MacDill AFB, Florida. General Smith had made an agreement with Col Rockly Triantafellu, TAC's Director of Intelligence, to provide some SAC assistance, because Colonel Triantafellu did not have enough qualified people. On Sunday, 21 October, Lt Col Norm E. Shaw, chief of the Research Branch of the Targets division, was sent down to MacDill. As yet the only reconnaissance support on the scene was an Army unit with equipment in vans. Then General Smith sent some photo processing specialists and PIs to MacDill, and TAC brought down some materials from Langley. A barracks was speedily remodeled into a photo processing center, in which, as the crisis continued, new equipment was installed directly from the manufacturer.<sup>117</sup>

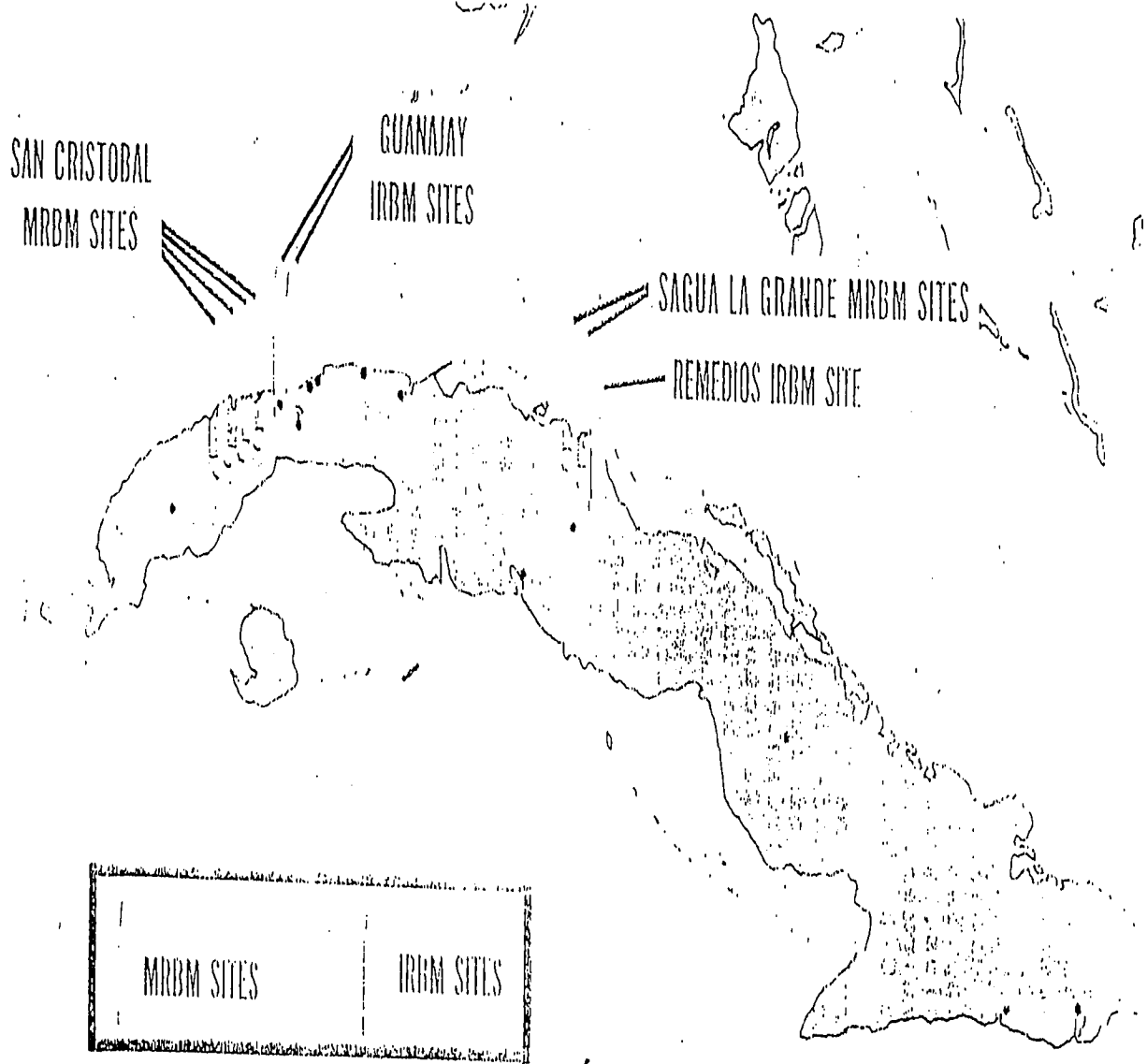
(U) A reconnaissance control center was also going to be necessary. There was no time to build one, so Colonel Shaw and the base commander drove around the base until they spotted a likely-looking structure: a B-47 flight simulator building. Since SAC was phasing out its operation at MacDill, the simulator was no longer needed. So the simulator came out, and within three days the building had been transformed into a command post and tactical reconnaissance center modeled on SAC's Reconnaissance Control Center, complete with hot lines to Langley and all the other bases where TAC was operating.<sup>118</sup>

(S) The TAC reconnaissance operation was quite different from SAC's. SAC had provided TAC with the photomosaic showing where all the sites were, for mission planning. The aircraft went in low, flying at two to five hundred feet, around midday to get shadow-free photography. They depended on surprise and generally succeeded in astonishing the Cubans and Soviets by their sudden appearance (the expressions of amazement were visible in the photography). As the aircraft returned to MacDill, the TAC Reconnaissance Center maintained a running dialogue with Langley over the hot line: "He's 50 miles out....20 miles out....He's on the ground....The cameras are down." The cameras were downloaded before the engines were shut off; the film was processed in less than two hours and flown by jet aircraft to Bolling AFB, District of Columbia--not Andrews, because they could save some 45 minutes by using Bolling, even though fixed-wing aircraft did not usually land at Bolling. The film was rushed to NPIC for exploitation, though Langley, like Offutt, got copies later.<sup>119</sup>

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(U) SOVIET OFFENSIVE MISSILE SITES IN CUBA, OCTOBER 1962

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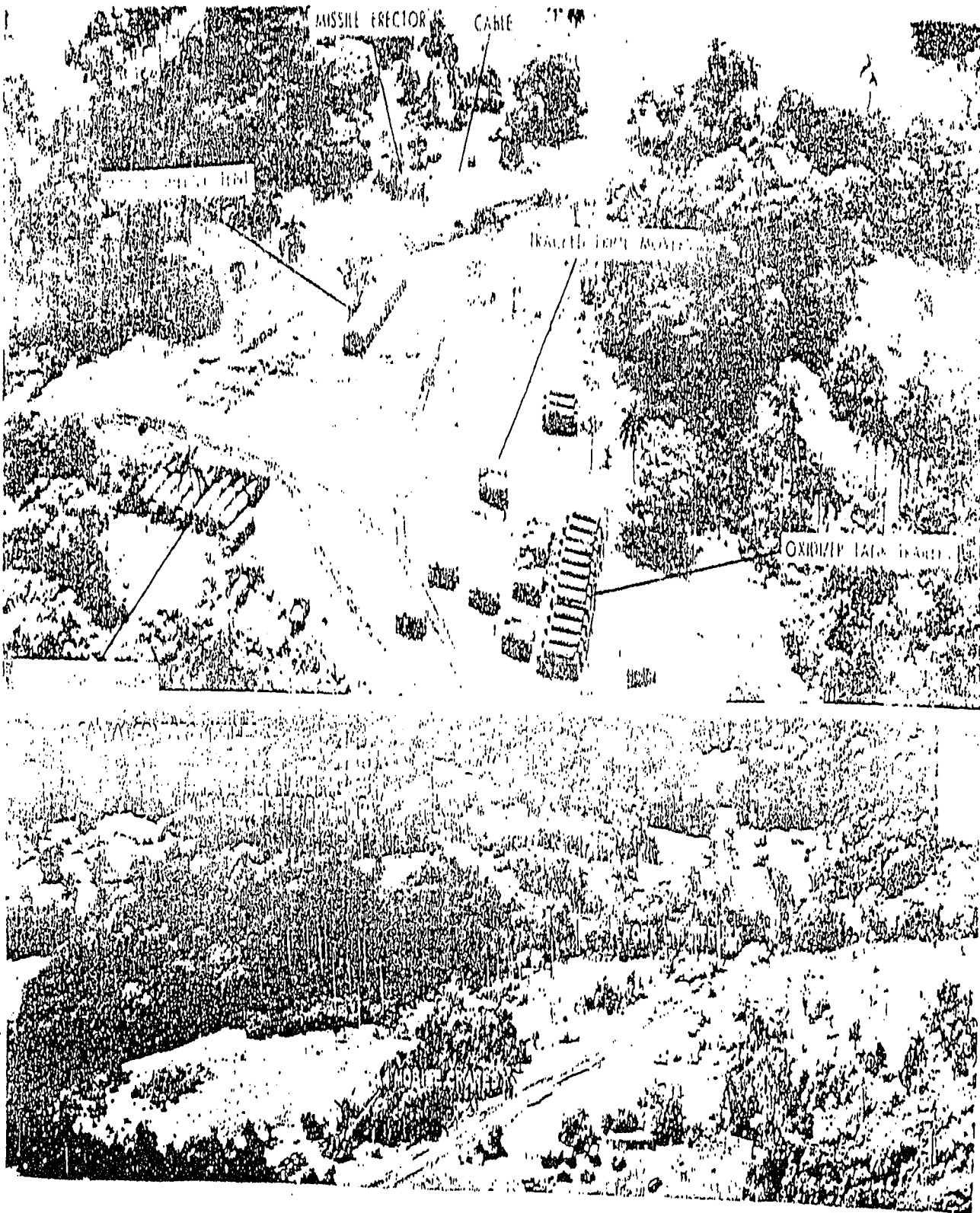
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(S) This low-level photography greatly interested the SAC PIs, because SAC's high-altitude reconnaissance did not provide so much visual detail. The TAC photography elicited comments like, "You could even see the knife and fork on the table" and "You could identify every Russian in Cuba." It was of immense value for determining how close the missiles were to operational readiness. 120

(S) SAC's ELINT collection effort had become even more intense after the President's public revelation. The 55 SRW had flown COMMON CAUSE ELINT collection sorties--two a day--on 14, 15, 17, 18, 19, and 20 October, as well as the continuing BLUE INK weather reconnaissance missions. On 22 October they had received orders to generate all KC-97 and RB-47 aircraft immediately. They flew three more COMMON CAUSE sorties on 22 and 23 October, and the ELINT data was rushed from Forbes to Offutt by the private vehicles of some of the ELINT specialists, to be processed and fused with the other intelligence data. 121

(S) The photo processing specialists were also extremely busy. Even before the President's speech, some of the original processing of main camera film had been done at SAC facilities not located on the East Coast, such as Laughlin; now that the extreme "close hold" was over, much more and eventually all of the processing gravitated to Offutt. In addition to the tracker film and the duplicate positives for the Research Center and the prints for the briefing boards, the Special Projects Lab had become responsible for getting Air Force Intelligence a copy of the main camera film. Soon, because of General Smith's conviction that the 544th had the best processing equipment in the military and could do it faster, the 544th became responsible for the printing and dissemination of the photography among all the military services. The Special Projects Lab was supporting the mission on a 24-hour, seven-day basis, at such a pace that the film processing equipment was unable to withstand the sustained operation; it kept breaking, and production was maintained only through the long hours and ingenuity of the laboratory and maintenance personnel. But since SAC had asked for the job, it was a matter of both pride and necessity to continue to support the mission, same-day suspenses and all, in the most proficient manner possible. T-39s and whatever other aircraft were necessary flew the film all over the country; the Target Materials Center had a room set up where they kept track of where the aircraft all were. 122

(U) The 544th's Detachment 1 at Bolling, some 50 people, furnished essential support to this effort. Operating on a round-the-clock basis, they furnished photographic supplies, photographic laboratory support, and courier services for the film, as well as procuring air target and navigational charts from various government agencies in the Washington area and couriering this material to Offutt. Among other things, they negotiated the procurement of approximately a million feet of film from the Army Map Service and arranged its expeditious shipment to the 544th. They also helped people from SAC and the

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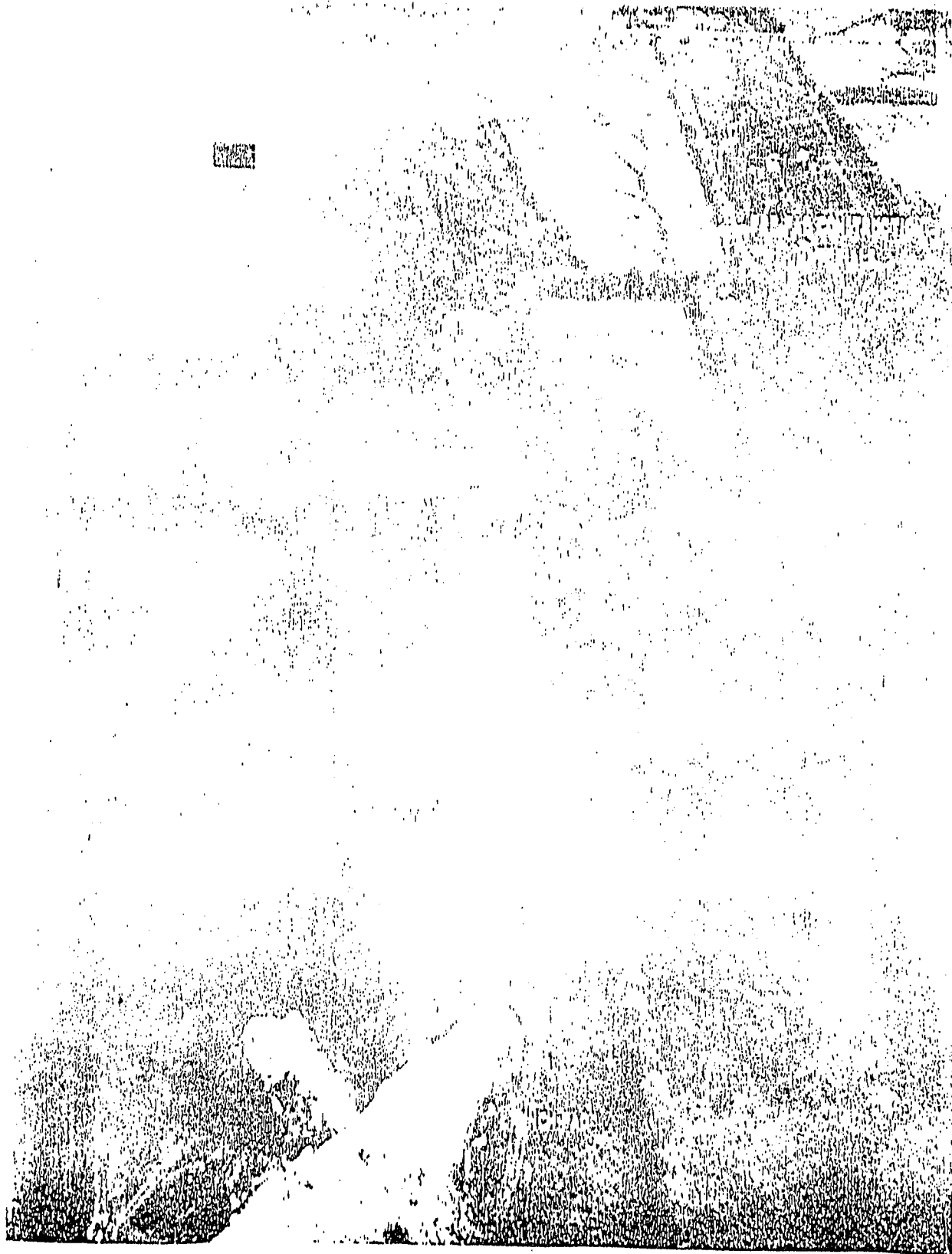
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(U) SAGUA LA GRANDE MRBM SITE, 23 OCTOBER 1962

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(U) GUANAJAY IRBM SITE 1, 23 OCTOBER 1962

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The image is a high-contrast, black and white scan of a textured surface. The majority of the frame is filled with a dense, grainy pattern of black and white pixels, suggesting a rough or uneven material. In the upper right quadrant, there is a dark, irregular shape that appears to be a shadow or a recessed area. The overall appearance is that of a heavily degraded or high-contrast photograph of a physical object.

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544th prepare briefing aids for the high-level presentations that were being made.<sup>123</sup>

(S) One of the briefings put together by the Research Center at this time was "How To Build a Missile Site." This project began after the identification of the pieces that the Soviets brought in for the SS-5 sites--precast concrete pieces that made the SS-5 a very distinctive system. During the crisis it seemed likely that if the Soviets were putting missiles into Cuba, they would start putting them in other places very shortly; and "How to Build a Missile Site" was developed to alert photo interpreters to such deployments and aid in early detection. The briefing identified each piece of the portable SS-4 and SS-5 launchers and support equipment and cartooned the assembly of the site. It was completed and presented in the midst of the crisis; but it became quite famous in the intelligence community, and Colonel Tighe later gave it to distinguished groups of military and civilian leaders in Washington and at Offutt.<sup>124</sup>

(S) Another urgent concern at the height of the crisis was the very real possibility that the defensive quarantine might not result in the withdrawal of the missiles: that it might be necessary to go on to an air strike, an invasion of Cuba, even war with the Soviet Union. In addition to the SIOP, SAC developed a contingency plan to assist in the overall destruction of the missile sites or aid an invasion if it took place. To support the contingency plan, the Research Center exploited the photography of Cuba; target dossiers were built and the Targets Division generated a target list on Cuba which was updated every day. Target installations were weaponeered, and the Defense Analysis Center studied ingress and egress routes. At the request of Col Jamie M. Philpott,\* Chief of the National Strategic Target List Division, the 544th provided large quantities of target materials to the JSTPS.<sup>125</sup>

(S) Since DIA was still a very new organization and not fully operational, the Research Center provided DIA with an already usable set of target files and similar material during this stage of the crisis. DIA's main effort still centered on the analysis, with John Hughes as well as the CIA representatives briefing the President in the White House.<sup>126</sup>

(C) Meanwhile the defensive quarantine went into effect on 24 October. Navy reconnaissance planes had made careful note of the ships that carried dry cargo, particularly five ships built in Japan for the lumber trade, with extra large hatches wide enough to accommodate IRBMs below decks. The position, speed, and direction of each Soviet ship had been carefully plotted, and there was reason to expect the first interception within hours. While military attaches in Moscow watched around the clock for any clue that might illuminate Soviet intentions and reactions to the situation, the US waited tensely for the first Navy attempt

\* (U) He too later became a major general and SAC DCS/Intelligence.

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to stop a Soviet ship at sea. That afternoon the Defense Department's information chief told reporters of the current CIA and DIA analysis of the threat: eight to ten offensive missile bascs, at least 30 missiles, over 20 bombers, and at least 5,000 Soviet personnel. Reporters pressed him to confirm or deny reports that some Soviet ships bound for Cuba had turned back, but he would not comment. In fact, that afternoon it was beginning to appear that the Soviet ships nearest Cuba had apparently stopped or altered course. The reason was not yet clear; at the Pentagon, the military chiefs speculated that the ships might have altered course to rendezvous with Soviet submarines, six of which had already been reported in the area, and then try to force their way through the quarantine.<sup>127</sup>

(U) One certainty was that the Soviets in Cuba were reacting vigorously to the President's announcement. Previously they had ignored the possibility of US reconnaissance and proceeded just as they were accustomed to do in the Soviet Union: using the same site patterns, making no attempt at camouflage, even decorating the areas in front of their barracks with Soviet ground force insignia and even a Red Army Star. Analysis of the aerial photography revealed that work at the missile sites was proceeding at a very rapid pace--and the builders had begun to use camouflage.<sup>128</sup>

(S) At the beginning of the quarantine, on 24 October, the Commander-in-Chief, Atlantic (CINCLANT), Adm Robert L. Dennison, had tentatively asked the Air Force to help locate and identify shipping. General LeMay, as Chief of Staff of the Air Force, had immediately offered Air Force assistance, and CINCLANT had replied with a definite request: he wanted SAC to search an area in mid-Atlantic and provide name and position of all merchant ships in the area and their course and speed. SAC's Director of Operations, Maj Gen K. K. Compton, directed his operations staff to begin planning a one-time reconnaissance mission called BLUE BANNER.<sup>129</sup>

(S) Orders to prepare for BLUE BANNER went to the 303rd Air Refueling Squadron (ARS) at Kindley AFB, Bermuda; the 98th ARS, with the Lajes Task Force, Azores; and the 55 SRW at Forbes. The 303rd was to launch seven KC-97s on 25 October for a 13-hour search of the eastern portion of the area assigned to SAC; the 98th was to launch nine tankers. The 55 SRW was to prepare to fulfill any subsequent missions requested.<sup>130</sup>

(S) The tankers flew the sea search mission, radioing their sightings back to SAC headquarters, from which the information was passed to the Navy. Soon after they became airborne, Headquarter's Air Force contacted the SAC battle staff and asked that cameras be used to get a photographic record of the sightings. The tankers had no cameras. SAC obtained cameras and film and shipped them by KC-97 to Lajes and Kindley, but no further sea search missions were required of the refueling squadrons.<sup>131</sup>

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(S) Preparations were under way for the use of the RB-47s in the BLUE BANNER sea search. Just before midnight on 24 October, five tankers had left Forbes for Kindley to support the reconnaissance effort. Shortly after dawn on the 25th, five RB-47s left Forbes. They flew to an area near Bermuda for refueling, then searched in assigned areas east and south of the island. Each carried a second navigator to act as an observer and relay ship locations to SAC. When an aircraft made a sighting, either visually or by radar, it descended to about 5,000 feet to take photographs and determine name and registry. Reports were passed to SAC by radio. After a second refueling, four of the aircraft returned to Forbes after a 15-hour mission; the fifth had landed at Kindley because of a radio malfunction.<sup>132</sup>

(S) The film was flown to Offutt, where it was processed by the 544th in a tremendous effort that kept some of the photo processing specialists at their task for over 24 hours straight. It was then flown to NPIC. But SAC's part in the sea search was far from over. Shortly before noon on the 25th, CINCLANT had requested another mission the next day in the same area. A JCS message the same day said SAC should be ready to continue these missions--the implication was indefinitely.<sup>133</sup>

(S) These were probably the days during which a ship called the Odessa was the focus of a great deal of concern in the intelligence community. The Odessa had left the Black Sea and then escaped the reconnaissance network--and a good many people in the intelligence community suspected it was carrying the nuclear warheads for the missiles. Navy PB-4Ys looked for it for several days, flying the wide expanse of the Atlantic Ocean in criss-cross fashion, while the President and the Secretary of Defense grew more and more impatient. Finally SAC was directed to find that ship.<sup>134</sup>

(S) In addition to sending out the tankers and the RB-47s, General LeMay had also directed SAC's airborne alert aircraft to report ship positions south of the 45 degree parallel. Many B-52s and KC-135s on airborne alert flew across the Atlantic to air refueling areas near the coast of Spain. These sorties provided opportunities to observe shipping. There may also have been some signals intelligence (SIGINT) tipoff suggesting where to look. The B-52s used their navigational radar to spot blips in the water and then descended to inspect the ships visually. Finally a B-52 crew spotted the Odessa.<sup>135</sup>

(S) On discovery, the ship stopped dead in the water. The B-52 crew observed the Odessa at low level and reported their find--probably the most significant of the 374 radar and visual sightings made during the airborne alert. The Odessa never came any closer to Cuba, but eventually turned around and returned to the Soviet Union.<sup>136</sup>

(U) The first intercept of a Soviet-bloc ship had taken place on the morning of 25 October. Twenty-two hours after the quarantine had gone into effect, the tanker Bucharest was allowed to pass

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through the line of warships after declaring by radio that she carried only petroleum. An East German passenger ship had also been allowed to pass without being boarded, but Navy ships followed both in case a second intercept was required. However, Navy reconnaissance had determined overnight that the 16 dry cargo vessels which had changed course or stopped on Wednesday were lying dead in the water or moving in uncertain circles. Some had turned around--apparently having received orders not to risk running the blockade with sensitive cargoes. US aircraft tracked them all the way back to Soviet ports.<sup>137</sup>

(U) That afternoon, in a tense meeting of the UN Security Council, the Soviet ambassador to the UN had challenged the US ambassador, Adlai Stevenson, to produce hard evidence in proof of his allegation that Moscow had installed offensive missiles in Cuba. Stevenson had dramatically turned to enlarged photographs of the missile sites, which stood behind him on shrouded easels, and unveiled them with devastating effect.<sup>138</sup>

(S) President Kennedy had already ordered night reconnaissance flights over Cuba and added missile fuel to the list of contraband. The requirement for COMMON CAUSE missions had dropped briefly to one a day, but on 26 October the requirement rose to three a day. The sea search continued. Again on 26 October, five RB-47s left Forbes at dawn and were refueled by tankers out of Kindley, which had now become an operating location of the 55th. Once again they searched for ships and photographed them. Only one returned directly to Forbes; the rest, because of weather or malfunction, had to remain overnight at Kindley.<sup>139</sup>

(S) In addition to these BLUE BANNER missions, at the request of CINCLANT the 55 SRW sent five more RB-47s to seek a particular ship, the Soviet freighter Grozny. This ship, one of two ships which had not stopped on Wednesday, was believed to be involved in transporting missiles to Cuba, and when last seen on the previous day, it was still holding a course of 260 degrees toward Cuba. It seemed to be attempting to run the blockade.<sup>140</sup>

(S) For this mission, BLUE BONNET, the first aircraft was launched out of Kindley. Four more RB-47s launched successively out of Forbes and refueled in the Bermuda area. Each aircraft in turn proceeded to the Grozny's last known position at 2510N 5140W and flew a general orbital search pattern for about three hours until another RB-47 arrived to replace it. They did not find the Grozny that day. All five aircraft landed at Kindley.<sup>141</sup>

(U) That day, 26 October, had been a tense one elsewhere. Early that morning the first boarding and search of a Cuba-bound ship had taken place, with great care not to offend the Soviets unnecessarily. A dry cargo ship of neutral registry, sailing under Soviet charter, had quietly submitted to boarding, presumably on Soviet instructions, and proved to be carrying no weapons. But the point had been made that the Navy was exercising the right to stop and search all vessels bound for Cuba.<sup>142</sup>

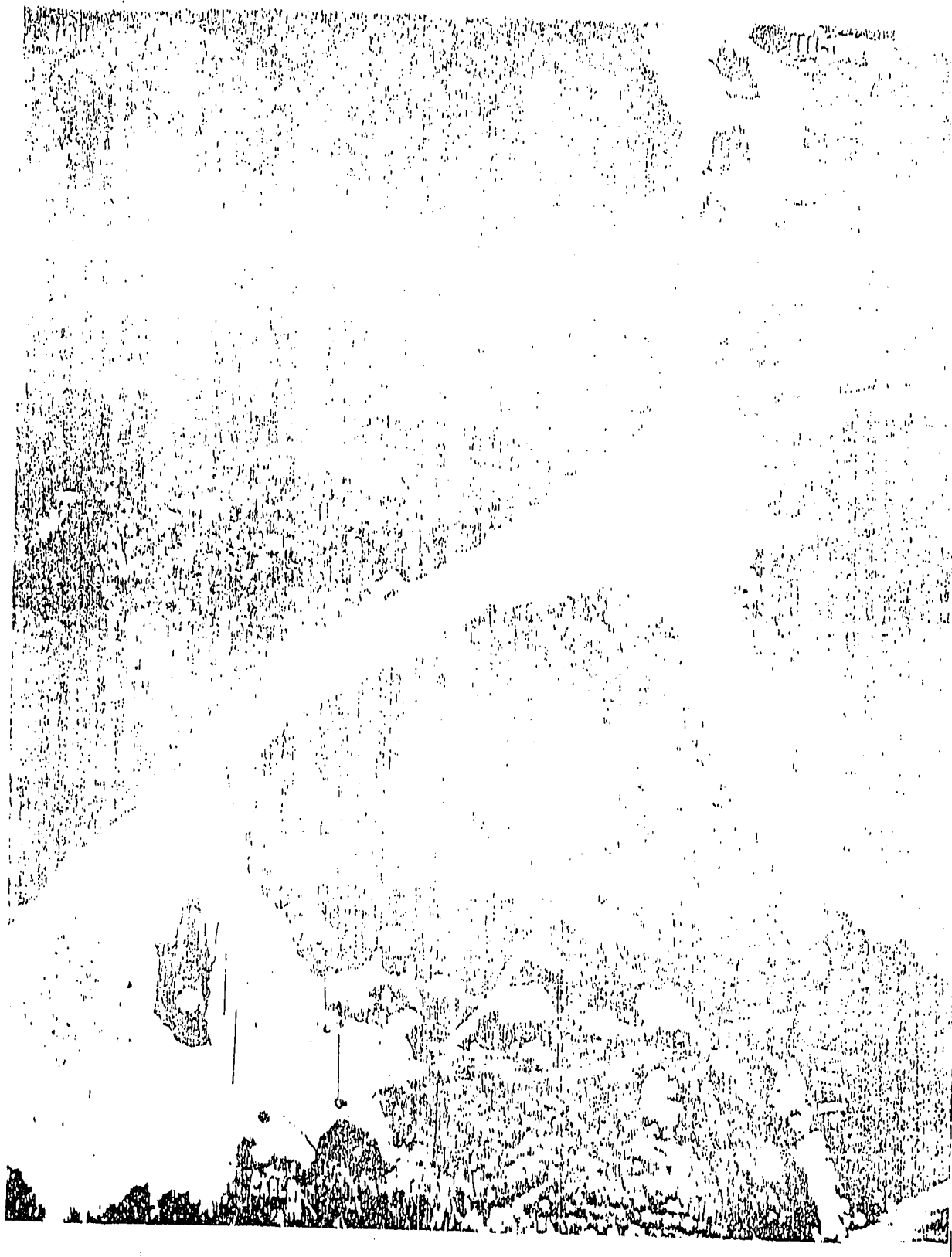
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(U) SAGUA LA GRANDE MRBM SITE 2, 25 OCTOBER 1962



(U) But ExComm had other cause for concern. The latest aerial photographs of Cuba showed that work on the missile sites was going ahead rapidly, and serious efforts were under way to camouflage the activity. The Soviets were racing to make the sites operational, and time was running out: soon the MRBMs could be ready to fire. The President had ordered more low-level reconnaissance flights, one every two hours. Once again there was discussion of an air strike.<sup>143</sup>

(U) That evening a long letter from Khrushchev to Kennedy arrived by teletype. It showed some signs of willingness to negotiate the removal of the missiles. Khrushchev stated that the ships now sailing to Cuba carried no weapons at all and suggested that if the President were to give a no-invasion pledge and recall the American fleet, the problem of "the weapons which you call offensive" would appear in a different light. It was a strange, disjointed letter, without any specific commitment that the Soviet missiles would be dismantled in a verifiable manner.<sup>144</sup>

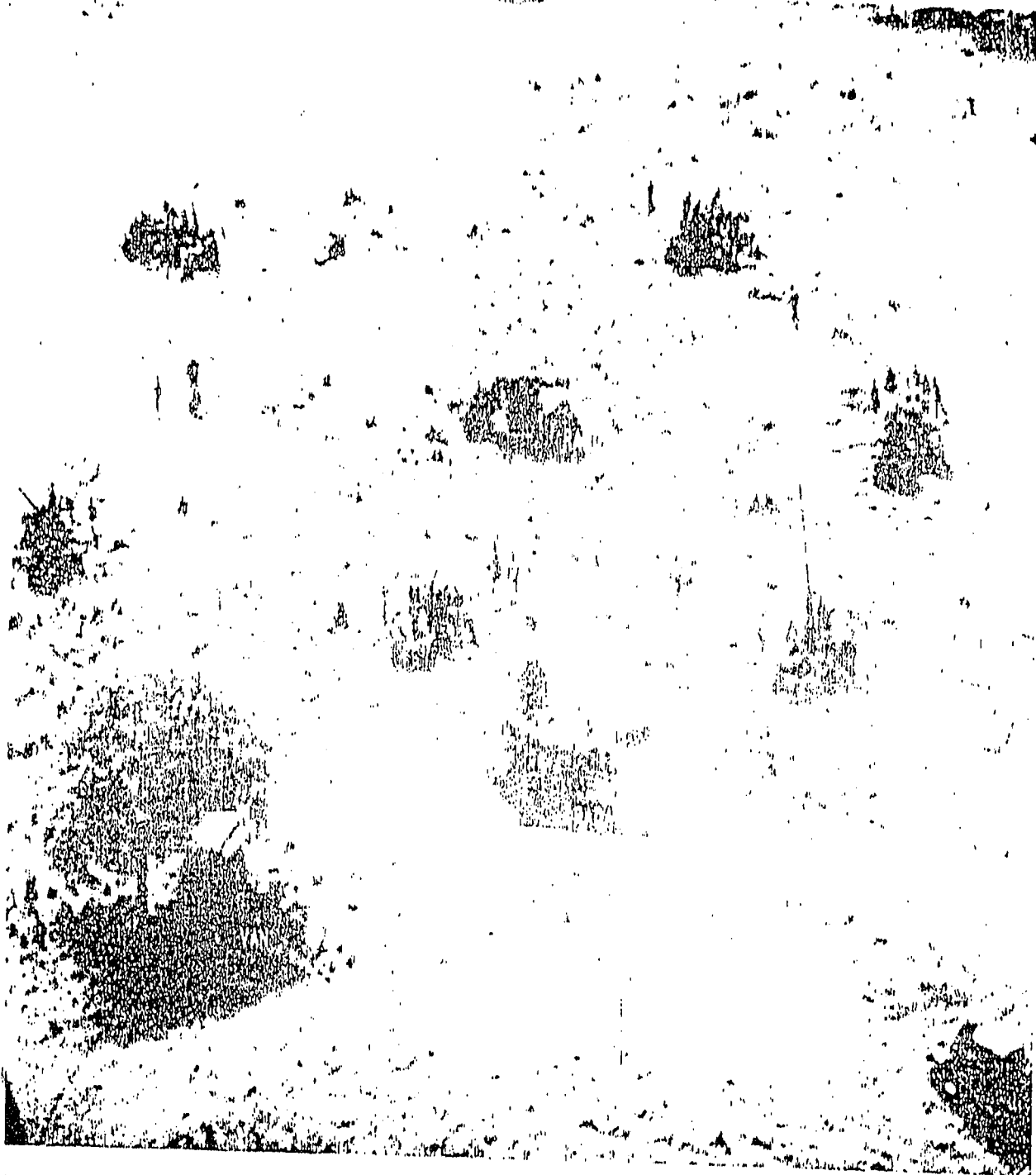
(U) ExComm reconvened at 10 that night in extraordinary session to consider the secret letter. They decided to treat it as a bonafide proposal meriting a serious reply. The State Department's Soviet affairs experts worked all night, analyzing the letter alongside a memorandum of a Soviet proposal, made through informal channels, that seemed to outline a settlement tolerable to both sides.<sup>145</sup>

(U) But the next day, 27 October, was to prove the darkest day of the crisis. At ExComm, McCone reported that a Soviet ship had detached itself from the others outside the quarantine line and was headed for Cuba, while work on the missile sites was going ahead day and night, with no sign of slackening. And before the committee could settle down to drafting a reply to the secret letter, Radio Moscow started broadcasting a second Khrushchev letter addressed to Kennedy. It was markedly different in style and tone from the first, bearing the signs of Soviet-style group thinking. It demanded that if the US wanted the missiles out of Cuba, it must remove its own missiles from Turkey. The men around the table in the Cabinet Room faced a new and serious problem: which letter deserved a serious reply?<sup>146</sup>

(S) Meanwhile, at Kindley, the RB-47s of BABY BONNET had resumed their search for the Grozny, with five specific routes devised by SAC Headquarters. These routes were designed to sweep a wide area of suspicion, and crews were briefed to go as low as necessary to make positive identification of all surface vessels operating in the area.<sup>147</sup>

(U) The first two launches were made without incident. But the third RB-47 crashed on takeoff, killing all four crew members--the integral crew, Major Britton, Captain Constable, and Lieutenant Rasmussen, and Captain Dennis who had been added to the crew to aid in the search portion of the mission.<sup>148</sup>

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(U) ANTIAIRCRAFT SITE AT SAN CRISTOBAL, 27 OCTOBER 1962

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# The Cuban Missile Crisis Revisited UMI 2005

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C	67	68	69	70	71	72	73	74	75	X	X	X		
D	1462	X	Transcript meets Anchor only				X	X	X	X	X	X		
E	1463	X	Constitution Hydroplan				X	X	X	X	X	X		
F	X	X	X	X	X	X	X	X	X	X	X	X		
G	X	X	X	X	X	X	X	X	X	X	X	X		

# **The Cuban Missile Crisis Revisited: An International Collection of Documents, from the Bay of Pigs to the Brink of Nuclear War**

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*The Cuban Missile Crisis Revisited: An International Collection of Documents, from the Bay of Pigs to the Brink of Nuclear War* reproduces a comprehensive collection of records from the archives of the three key governments involved in the most dangerous confrontation of the Cold war. Declassified records from the United States, Russia and Cuba significantly advance analysis of the historical foundations of the missile crisis, the policy calculations and considerations of President John F. Kennedy and premiers Nikita Khrushchev and Fidel Castro, and the overt and covert military and paramilitary operations that combined to bring the world to the threshold of a nuclear exchange. Topics extensively covered in the documentation include the failed U.S.-led invasion at the Bay of Pigs, renewed attempts to overthrow Castro through Operation Mongoose and Operation Northwoods, U.S. military contingency planning for conflict with Cuba, naval warfare, Soviet and Cuban decision making and communications during the crisis, and the repercussions for U.S.-Soviet relations, and Soviet-Cuban relations in its aftermath. Materials were identified, obtained, assembled and indexed by the National Security Archive, a non-profit Washington D.C. based research institute and library. The microfiche collection is accompanied by a printed guide and index.

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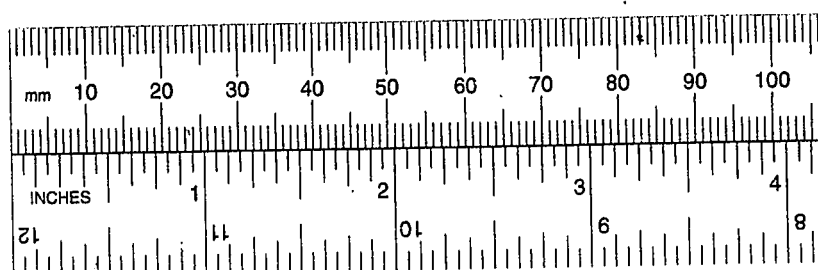
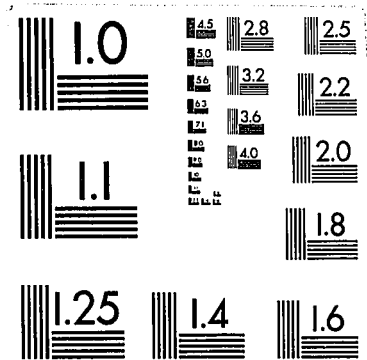
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(S) Less than ten minutes after the accident, Capt Joseph L. Carney and his RB-47 crew finally located the Grozny at 2350N 6110W. They had descended for ship surveillance and recognition in an area where they had sighted three ships. The first ship interrogated visually turned out to be a US Navy destroyer with the code name of "Rocket." After determining that, they climbed back up to find the other shipping previously spotted in the area. At approximately 1,500 feet altitude they spotted one of the other ships. Descending to 500 feet for a closer look, they recognized the Grozny from photos given to them at the briefing earlier that morning. As one of the crew members later reported, "Markings on the ship included the Russian name in seven letters. The smoke stack in the rear has a large red band around it and the sickle and hammer displayed on the side of the stack. The deck was covered with long, silvery cylinders in a fore and aft position. These cylinders were covered with shields across the top reaching about halfway down the sides of the cylinders and placed so that there was air space between the coverings and the cylinders."149

(S) After the initial identification run, the RB-47 experienced aircraft radar jamming, apparently from the Grozny, which began trying to hide in a squall line. The RB-47 made passes at the Grozny from all angles while the crew photographed the ship. Then they directed "Rocket" to the target area, and from "Rocket's" command ship they relayed orders to "Rocket" to remain unseen by the target and 17 AM in trail. For over two hours the RB-47 circled the Grozny while directing the two US ships to the area. When the Navy had contact with the Soviet ship, the RB-47 returned to Kindley, where its cameras were unloaded and the film flown to Offutt for processing. The JCS reported later in the day that surface ships were following the Grozny, but out of sight.150



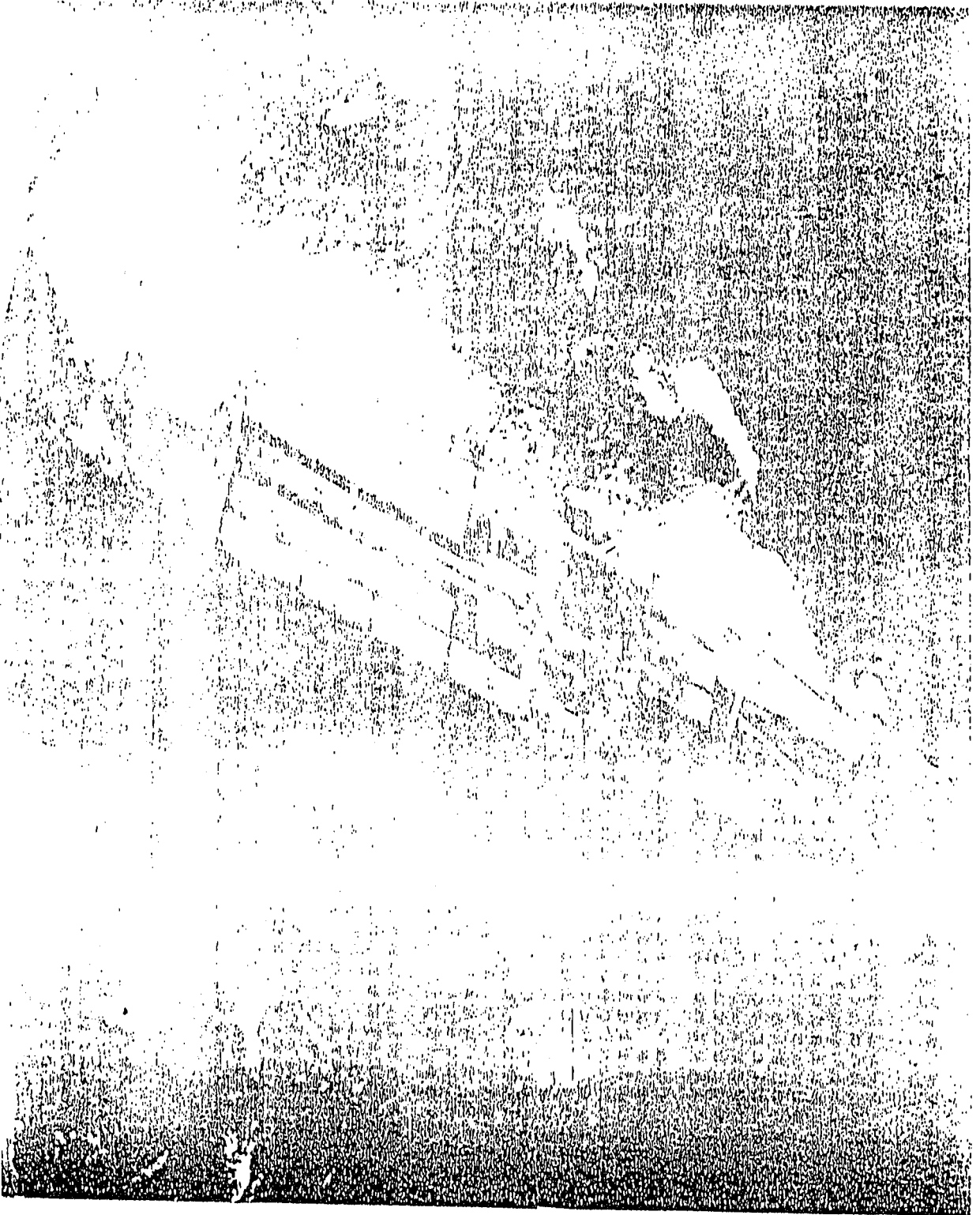
(U) MAJOR RUDOLPH ANDERSON UNCLASSIFIED

(S) That same morning, Maj Rudolph Anderson, Jr., had taken off from McCoy for yet another U-2 overflight of Cuba. Over the eastern end of the island a projectile, presumably from a Soviet-manned SAM site, exploded near his aircraft. He crashed on the island somewhere in the Banos-Antilla area.151

(U) The news of the loss of the U-2 arrived at ExComm while Radio Moscow was still broadcasting Khrushchev's second letter. A dangerous new element had just been added to the equation. The committee had considered previously that if a U-2 was shot down, the appropriate response would be an air strike.152

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(U) THE SOVIET SHIP GROZNY, 27 OCTOBER 1962

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(U) The most immediate problem was the letter. The US missiles in Turkey were the nearly obsolete JUPITERS, and Kennedy had planned to remove them in August 1962. Because of Turkish opposition, it had not been done, though Kennedy had assumed it had. Now suddenly the JUPITERS were on the bargaining table, and the US could not very well sacrifice them under threat from Soviet missiles in Cuba.<sup>153</sup>

(U) But the President knew that the Turkish missiles were a side issue. If he had to order an armed attack on Cuba, it would not be because of them but because the Soviets had tried by stealth to alter the balance of forces between east and west. And since the quarantine was not apparently succeeding in forcing the removal of the missiles, more drastic steps would have to be taken in a matter of hours, since the MRBMs were nearing operational readiness. An air strike against the missile sites, followed by an invasion of Cuba, was beginning to emerge as the most likely alternative as the day wore on.<sup>154</sup>

(U) By four that afternoon ExComm knew that two of the low-level reconnaissance aircraft had drawn antiaircraft fire as they overflew the missile sites that morning. The President decided that the Cuban surveillance flights would have to be continued, with fighter escort if there was more shooting. Meanwhile there was still the problem of the letters. Robert Kennedy had first suggested that they brush aside the broadcast letter and reply instead to the secret letter as if it were a valid proposal, and the President asked him to try drafting the reply. He finished the draft that evening. The essence of this final approach to Moscow was to gamble that Khrushchev had not been overruled since sending the secret letter and to accept a set of terms Khrushchev had never formally offered.<sup>155</sup>

(U) There was no reason for optimism. Late that evening, after a copy of the letter had been delivered to the Soviet ambassador, ExComm met again. They had just served an ultimatum, making it clear that unless the work stopped on the missile sites, there would be a grave risk of war. There was talk of the next step: tightening the quarantine to keep Soviet petroleum out of Cuba or launching an air attack to destroy the missiles on the ground. Kennedy arranged with McNamara to review the air-strike planning the next morning. As the meeting broke up close to midnight, the President said wearily, "Now it can go either way."<sup>156</sup>

#### The Withdrawal (U)

(U) Sunday, 28 October, was a clear, bright day like that other Sunday on which Major Heyser had made his fateful overflight. But the situation looked so grim that the Undersecretary of State remarked to McNamara, as they walked into the White House, that the bright morning reminded him "of the Georgia O'Keefe painting that has a rose growing out of an ox skull." Kennedy's last letter to Khrushchev had been a shot in the dark, eagerly accepting a proposal never formally offered. The Cuban



overflights were continuing, and there still was no sign of slackening in the work of making the MRBMs ready to fire. A few minutes before nine o'clock, Radio Moscow announced that it would broadcast an important statement on the hour. The Executive Committee waited, speculating gloomily that if Khrushchev's answer was no, the US would have to launch an air strike no later than Tuesday morning.<sup>157</sup>

(U) The announcer in Moscow began to read another Khrushchev letter. Three paragraphs into it, the wire-service reporters in Moscow knew what the story was going to be: ". . . the Soviet government. . . has given a new order to dismantle the arms which you described as offensive, and to crate and return them to the Soviet Union." Khrushchev then repeated and accepted the terms Kennedy had set: in return for an understanding that there would be no invasion of Cuba, Moscow had ordered its officers in Cuba to take appropriate measures to discontinue construction, dismantle the facilities, and return them to the Soviet Union. He expressed willingness to reach agreement on UN verification.<sup>158</sup>

(U) Kennedy did not wait for the official text of the letter to arrive. At noon, after an hour-long session with ExComm, he drafted a quick acceptance statement, which was released to White House reporters and beamed to Moscow over the Voice of America.<sup>159</sup>

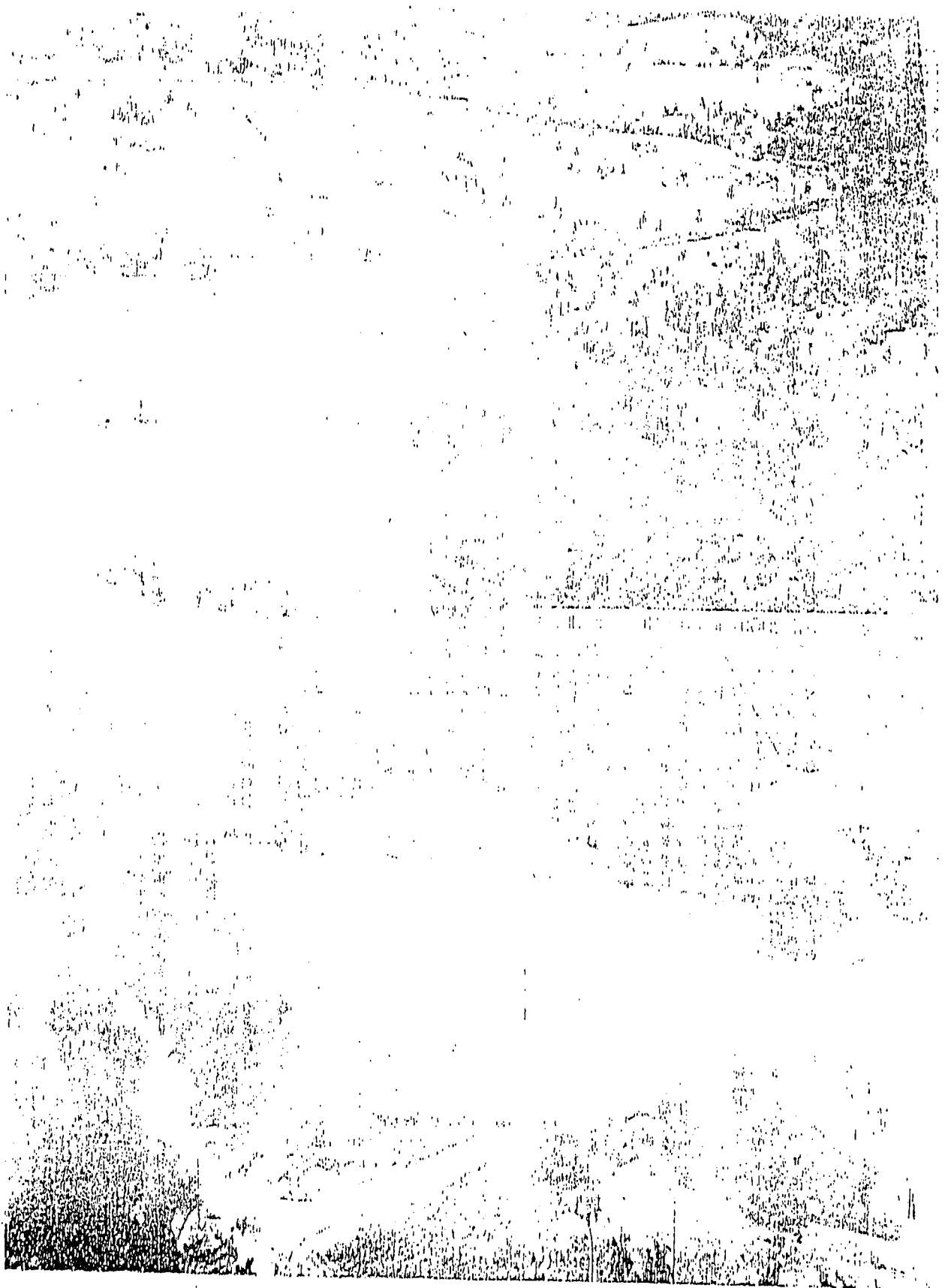
(U) But he was aware that the Soviet commitments had yet to be redeemed, and there remained also the problems of getting UN inspectors into Cuba to certify the removal of the missiles and of making sure that the IL-28 bombers--which the Soviets had formally given to Cuba, instead of retaining control as they had with the missiles--were removed as well. It was not yet time to say that the crisis was over. That afternoon the JCS sent a new directive to CINCLANT: there would be no more boarding of ships, but the quarantine vessels would remain on station.<sup>160</sup>

(U) Early on the 28th, the Grozny had stopped at the quarantine line. For the next few days it remained there, dead in the water. Three other Soviet ships later joined it, just outside the line.<sup>161</sup>

(S) After the Grozny mission, SAC had terminated its operations at Kindley, and all the 55 SRW aircraft had returned to Forbes by the night of 28 October. But they remained ready until 29 November to support further CINCLANT requirements.<sup>162</sup>

(S) The IRBMs that had been en route to Cuba never reached the island. On 29 October the dismantling and removal of the missile sites began. Since Castro adamantly refused to allow UN inspectors into Cuba, the dismantlement and removal had to be verified by SAC high-altitude and TAC and Navy low-level photography. Because of the possibility that an air strike might still be required, ELINT collection against air defenses continued at a high level. On 30 October the 55 SRW established an operating location at Little Rock AFB, Arkansas, to support the COMMON CAUSE missions, which continued to fly three a day until 22 November.<sup>163</sup>

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(U) ABANDONED LAUNCH POSITION AT SAN CRISTOBAL MRBM SITE 3 1 NOVEMBER 1962

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(S) As part of the verification effort Colonel Tighe went down to Laughlin to head a US photo interpretation team which included PIs from NPIC as well as SAC. There he learned that the CIA had never shown its U-2 pilots the product they acquired. He believed it was important that the pilots see what they were getting, so that they would understand the need for precise navigation and careful photography. So at Laughlin he started showing them enlarged photos of the results of their missions and briefing their contributions--an innovation that raised morale and also greatly improved the quality of the photography since the pilots now realized the importance of making checkpoints precisely and keeping the aircraft in a stable mode when collecting the photography.<sup>164</sup>

(S) The US photo interpretation team at Laughlin was responsible for making sure that what went into or came out of Cuba was closely watched and meticulously measured. The PI reports were extremely detailed; in one instance, team members went so far as to count the sugar sacks they could see through a hatch, in the hold of a Soviet Ship and identify the sacks loaded on trucks. It was actually possible to read the brand names on the sacks.<sup>165</sup>

(S) In this way, using very detailed photography, the photo interpreters tracked the progress of the withdrawal, as erectors were removed, launch stands broken up, missile ready tents removed. Convoys moved out, taking the missiles and associated equipment to Mariel and La Isabela and Casilda to be loaded on ships. The vessels sailed out, to be intercepted by the quarantine fleet for close alongside inspection.<sup>166</sup>

(S) But the same reconnaissance showed that the IL-28s were not being shipped out. Instead, they were being uncrated and assembled. Castro had no intention of giving them back.

(S) Analysis of the Grozny photographs had revealed, meanwhile, that the mysterious silver cylinders were not disassembled missiles or missile fuel. They were now assessed to be pressurized tubes of liquid ammonia. On 30 October CINCLANT withdrew the ships that had been trailing the Grozny. By 1 November the US knew the names of the ships which had been carrying missiles, and the Grozny was allowed to proceed to Cuba.<sup>167</sup>

(S) By 10 November it had been determined that 42 Soviet missiles had departed Cuba. The MRBM and IRBM sites had been dismantled. But Castro was still holding out over the bombers, despite the arguments of Anastas Mikoyan, who had been in Havana since 2 November.<sup>168</sup>

(U) Kennedy stepped up the pressure on Khrushchev, having made it clear that the no-invasion pledge was off as long as any offensive weapon remained on Cuban soil, and that if necessary the bombers would be destroyed by an air strike. Finally, on 19 November, Castro gave in to Soviet pressure. The following day, Khrushchev announced that the USSR would remove all the bombers, and Kennedy announced that the blockade would be lifted.<sup>169</sup>

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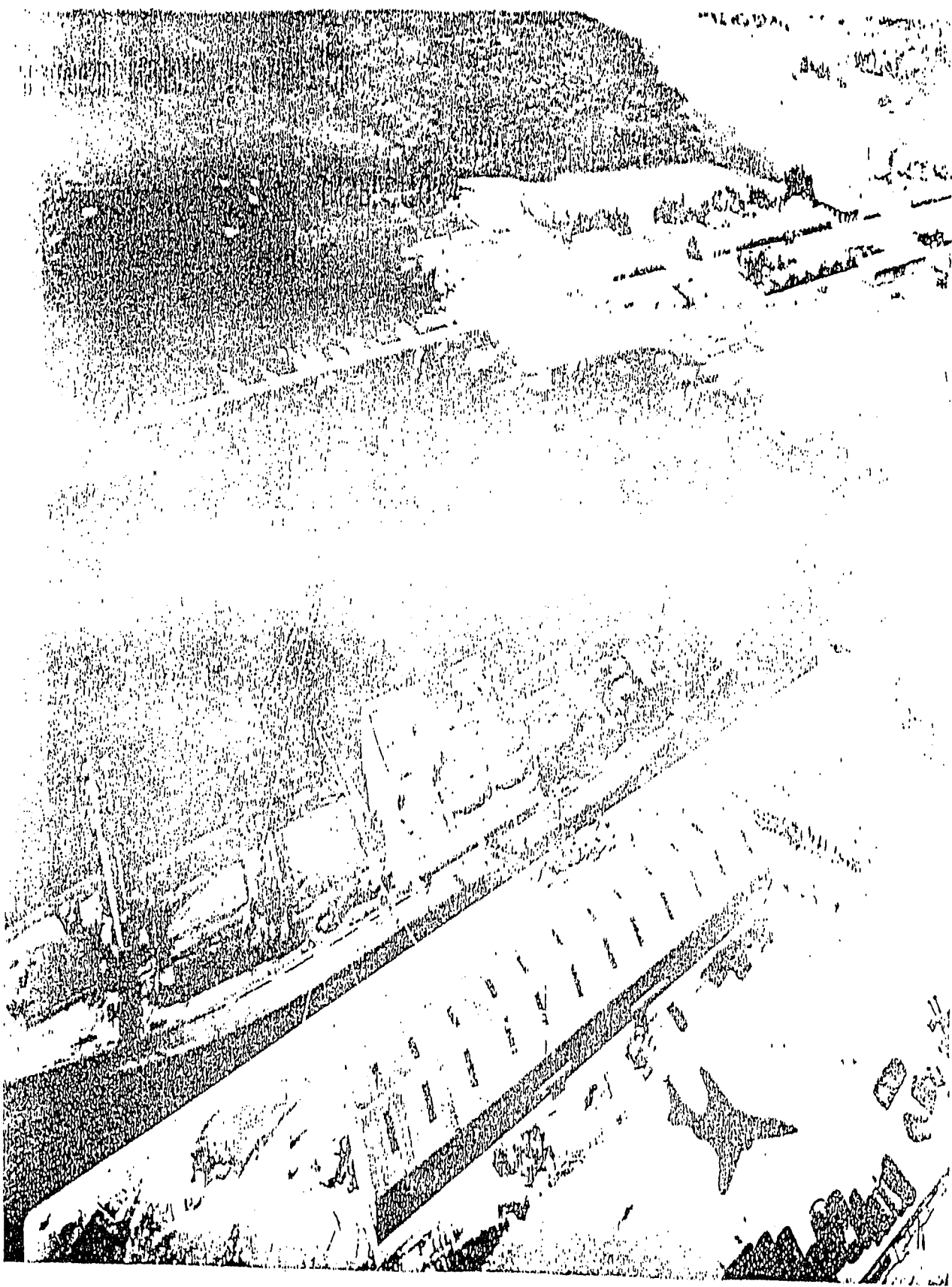
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(U) MISSILE EQUIPMENT AT MARIEL PORT FACILITY

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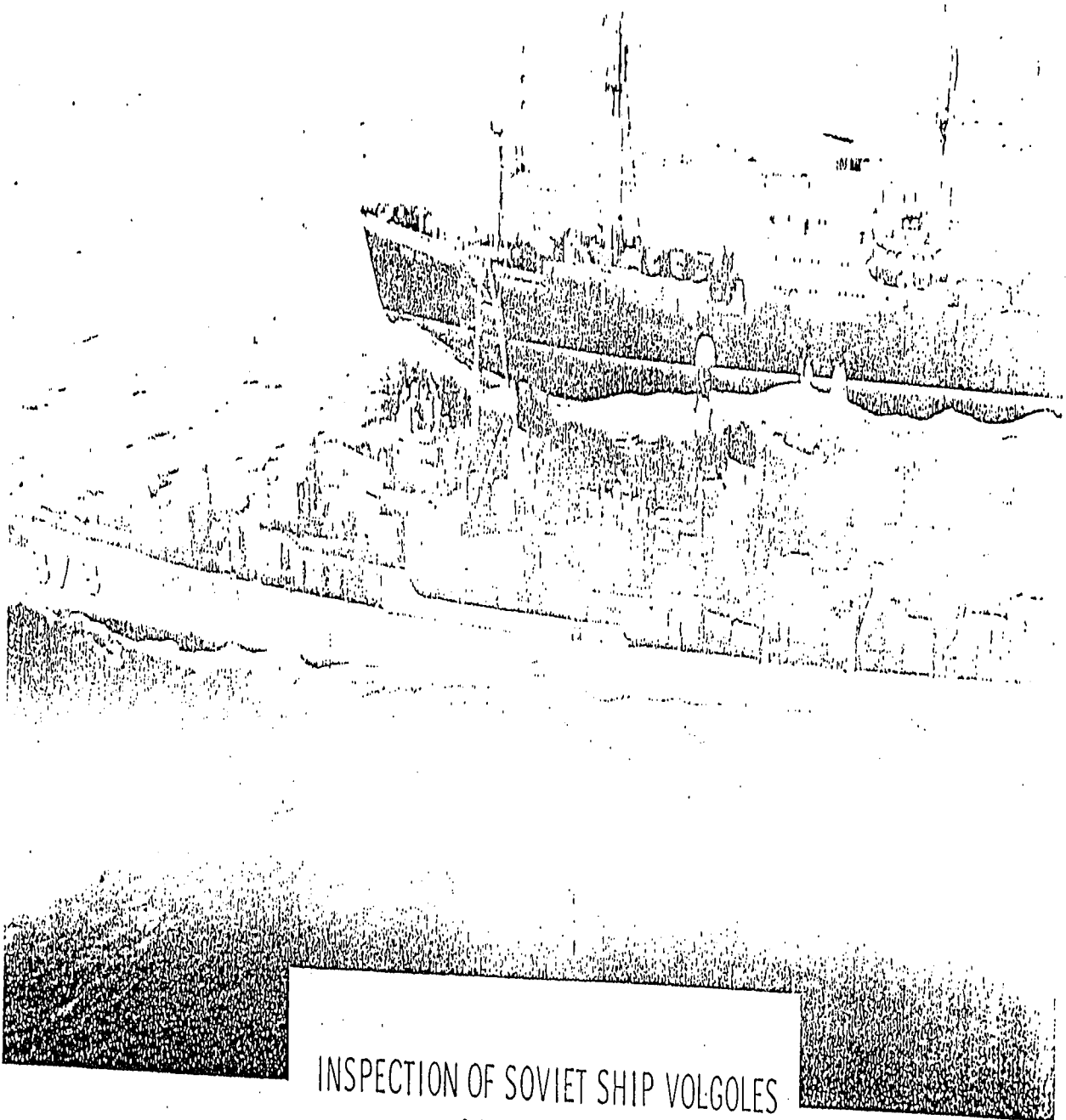
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INSPECTION OF SOVIET SHIP VOLGOLES  
9 NOV 1962

(U) ALONGSIDE INSPECTION OF A SOVIET SHIP

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(S) Under close surveillance by SAC, TAC and the Navy, the IL-28s at San Julian and Holguin Airfields were disassembled and reerated and moved to ports for loading on Soviet ships. By 6 December a total of 42 had been counted aboard these ships bound for the USSR, thus drawing to a close the immediate threat of Soviet offensive systems in Cuba.<sup>170</sup>

(S) On 27 November, when it was clear that the IL-28s were really being moved out, SAC had returned to a normal DEFCON 4 state of readiness. The day after the last IL-28 left Cuba, President Kennedy visited Headquarters SAC and was given a tour of the underground command post and the Defense Analysis Center. He presented General Power with a unique plaque citing SAC's extraordinary role in the Cuban crisis.<sup>171</sup>

(S) The most important element in that role was, as always, deterrence. But it was overwhelmingly clear that SAC reconnaissance and intelligence had played key roles. President Kennedy had earlier praised the contributions of the reconnaissance pilots. But the skill with which they completed their missions would have been largely wasted if the organization for quickly processing and delivering the intelligence they gathered to the highest levels of government had not existed. The processing of raw data in the form of exposed camera film and tapes from ELINT recorders was as vital to the reconnaissance effort as flying the mission. The Cuban crisis was a fast-developing situation in which intelligence had to be quickly processed, interpreted, and the results delivered to decision-making officials in time for them to act on it. According to General Smith, the system worked well. But he believed the Air Force must continue to modernize its intelligence processing equipment to match the speed and sophistication of the collection systems, and to maintain redundancy in this equipment so that the increased demands of a time of crisis, like Cuba, could be met.<sup>172</sup>

(U) The Cuban missile crisis of 1962 illustrated as dramatically as any event in American history the interplay between reconnaissance and intelligence within SAC, between SAC and the rest of the intelligence community, and between intelligence and decision making at the national level. Within SAC Intelligence, lessons learned during the crisis contributed directly to the modernization that has been a continuing theme ever since. But the larger significance was of course national and international: deterrence proved effective. This outcome was brought about largely through timely and responsive intelligence, showing SAC at its best in both collection and analysis.<sup>173</sup>

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(U) GENERAL POWER PRESENTS OUTSTANDING UNIT AWARD TO 544th COMMANDER AND CENTER CHIEFS

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## KEY PEOPLE IN THE STORY

In Washington

John F. Kennedy, President of the United States  
Robert F. Kennedy, Attorney General of the United States  
McGeorge Bundy, President's Special Assistant for  
National Security Affairs  
Robert S. McNamara, Secretary of Defense  
Roswell Gilpatric, Deputy Secretary of Defense  
Dean Rusk, Secretary of State  
General Maxwell D. Taylor, Chairman of the Joint  
Chiefs of Staff  
John A. McCone, Director of the Central Intelligence  
Agency (CIA)  
Lt Gen Marshall S. Carter, Deputy Director of CIA  
Arthur C. Luhndal, Director of the National Photographic  
Interpretation Center  
Lt Gen Joseph F. Carroll, Director of the Defense  
Intelligence Agency (DIA)  
John Hughes, Special Assistant to the Director of DIA  
Col John Ralph Wright, Jr., an analyst at DIA  
Roger Hilsman, Director of State Department Office of  
Intelligence and Research  
Eugene M. Zuckert, Secretary of the Air Force  
Gen Curtis E. LeMay, Chief of Staff of the Air Force  
Maj Gen Robert A. Breitweiser, Assistant Chief of Staff  
for Intelligence

In SAC

Gen Thomas S. Power, Commander in Chief, Strategic Air Command  
(SAC) and Director of Strategic Target Planning  
Maj Gen K. K. Compton, Director of Operations  
Brig Gen Robert N. Smith, Director of Intelligence  
Col George J. Keegan, Chief, Air Estimates Division  
Lt Col Norman E. Shaw, Chief, Research Branch, Targets Division  
Col Thomas S. Osborne, Commander, 544th Reconnaissance  
Technical Group (RTG)

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Lt Col Eugene F. Tighe, Jr., Chief, Research Center, 544 RTG  
Maj Calvin B. Olsen, Officer in Charge, Immediate Interpretation  
Section, Interpretation Branch, Research Center  
Maj Richard S. Heyser, U-2 pilot in the 4080th Strategic  
Wing (SW)  
Maj Rudolph Anderson, Jr., U-2 pilot in the 4080 SW

## In Other Organizations

Gen Walter C. Sweeney, Jr., Commander, Tactical Air Command (TAC)  
Col Rockly Triantafellu, Director of Intelligence, TAC

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